

# The Mining Journal

## RAILWAY AND COMMERCIAL GAZETTE,

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

No. 493.—Vol. XV.]

LONDON: SATURDAY, FEBRUARY 1, 1845.

[PRICE 6D.]

PERIODICAL SALE of Reversions, Life Interests, Annuities, Life Policies, Advowsons, Next Presentations, and all descriptions of Securities dependent upon human life.

**Messrs. Fuller and Marsh** respectfully inform the public, that by their system of PERIODICAL SALES, BY PUBLIC AUCTION, they are enabled to offer, to persons expectant, or otherwise interested in the above description of property, the most prompt, economical, and satisfactory mode of DISPOSING thereof, as, by classifying these descriptions of interests and properties in the same particular, and for the same day, much expense is avoided, and a far greater competition secured. Their PERIODICAL SALES of REVERSIONS, LIFE INTERESTS, ANNUITIES, LIFE POLICIES, ADVOWSONS, NEXT PRESENTATIONS, and all descriptions of SECURITIES dependent upon human life, SHARES IN RAILWAYS, MINES, and all other undertakings, will be continued throughout the present year as follows:—Thursday, February 6; Thursday, March 6; Thursday, April 3; Thursday, May 1; Thursday, June 5; Thursday, July 3; Thursday, August 7; Thursday, September 4; Thursday, October 2; Thursday, November 6; Thursday, December 4. Notices of sales intended to be effected by the above means should be forwarded to Messrs. Fuller and Marsh a fortnight prior to each date, in order that they may have the full benefit of publicity. For further particulars, as they are thereby enabled to include each property for the sum of two guineas and a half, including all expenses, should a sale not be effected.

Particulars of the next periodical sale may be obtained at the Hen and Chickens, Birmingham; Bush, Bristol; New London Hotel, Exeter; Pearce's Hotel, Truro; Adelphi, Liverpool; Royal Hotel, Manchester; Cuff's Midland Hotel, Derby; Black Swan, York; Tontine Hotel, Sheffield; Royal Hotel, Leeds; Tontine Hotel, Glasgow; Macgregor's Hotel, Prince-street, Edinburgh; Gresham's Hotel, Dublin; and at the offices of Messrs. Fuller and Marsh, 2, Charlotte-row, Mansion-house.

**IMPORTANT MINING PROPERTY**, situated near Aberystwyth, Cardiganshire, embracing the Cwmern, Llechwyllog, Llawn Cwm Bach, Blaen Caeant, and Flynnyon Lead and Copper Ore Mines.

**Messrs. Fuller and Marsh** have been favoured with instructions from the Committee of the Cardigan United Mining Company to PERPETUALLY SELL, BY PUBLIC COMPETITION, at the Auction Mart, on Thursday, March 6, in one lot, that important and valuable property, embracing the Cwmern, Llechwyllog, Llawn Cwm Bach, Blaen Caeant, and Flynnyon Lead and Copper Ore Mines, or adventure for lead and copper ore, and all other metals and metallic minerals in and throughout the aforesaid mines, together with all the MACHINERY, apparatus, buildings, fixtures, and implements, and all the extensive and valuable WORKS connected therewith, the whole of which will be included in the purchase.—These valuable mines are considered rich with mineral extract of the most productive character. May be viewed on application to Mr. George Francis (captain of the mines), of whom descriptive particulars may be obtained, twenty-one days prior to the sale; and at the Auction Mart; the Belle Vue Hotel, Aberystwyth; the Bush, Bristol; Adelphi Hotel, Liverpool; Royal Hotel, Manchester; Pearce's Hotel, Truro; and at the offices of Messrs. Fuller and Marsh, auctioneers and surveyors, 2, Charlotte-row, Mansion-house, London.

**CHEAP AND DURABLE ROOFING.** BY HER MAJESTY'S ROYAL LETTERS PATENT.

**F. McNEILL AND CO.'S IMPROVED PATENT ASPHALTED FELT.** The MANUFACTURERS beg to call the attention of ENGINEERS, ARCHITECTS, BUILDERS, and the public generally, to their IMPROVED PATENT ASPHALTED FELT, for ROOFING HOUSES, OUTHOUSES, VERANDAHs, OUTBUILDINGS, SHEDS, and every other description of building, in lieu of slates, tiles, thatch, zinc, &c. The FELT is also in great demand, and highly approved of, for lining granaries and store-houses, for covering garden sheds and frames, and corn and hay racks; it is also a protection to ceilings under flooring from wet and damp, at the same time deadening sound. The felt is perfectly impervious to rain, frost, or snow, and is a non-conductor of heat.

The great superiority of this article over every other description of roofing consists in its CHEAPNESS, LIGHTNESS, ELASTICITY, WARMTH, and DURABILITY—advantages which no other description of roofing combines, and which have been tested and fully proved by several years' experience.

\* \* \* \* \* Samples, with full directions as to its use, and the manner of applying it, with testimonials from, and reference to, gentlemen who have extensively used it, sent free to any part of the town or country; and orders by post immediately executed.

The PRICE of the ROOFING FELT is only ONE PENNY PER SQUARE FOOT, which is considerably less than half the expense of slates, and not more, in most places, than one-quarter the expense of slates; besides which, there is an immense saving effected in the expense of cartage and laying on, and particularly in the timber necessary to support the roof, as the weight of the felt is only about 24 lbs. to the 100 square feet.

F. McNEILL AND CO. also manufacture a felt for use under the chairs, &c., of rail; and a dry hair felt for covering the boilers, cylinders, &c., of steam-engines.

**PATENT FELT MANUFACTORY, LAMB'S-BUILDINGS, BUNHILL-ROW, LONDON.**

BY HER MAJESTY'S ROYAL LETTERS PATENT.

**SMART'S ELLIPTICAL CONVEX METALLIC FLOATS,** FOR STEAM-SHIPS, as applied to the Bristol and Dublin steamer *SHAMROCK*, and to the *SWIFT*, between Newport and Bristol. The patentee has now the satisfaction to announce, that, in addition to the ships already named, he has granted a LICENSE to the Bristol General Steam Navigation Company to USE his PATENT FLOAT in all their steam-ships, comprising the Dublin, Cork, Waterford, and the various channel port steamers, varying in power from forty horses to two hundred each.

The numerous ADVANTAGES attending this valuable invention may be seen below:

1. The appearance of these floats is light and elegant.

2. Their durability and stability are indisputable, as may be instanced by the *Shamrock* steamer, which has been fitted with them for eight months, and has since steamed nearly twenty thousand miles. The floats are now as firm and good as they were the first day.

3. Vibration is reduced so as to be scarcely perceptible; thus, the engines are eased, and both they and the ship suffer less wear and tear; and, from their peculiar form, they are strikingly advantageous in cases of strong head wind and heavy sea. Backwater and imbeddation is also reduced to its smallest quantum, and thereby lessening the chance of accidents to small boats, barges, &c., which has hitherto been consequent on the operation of the common paddle-wheel, particularly in crowded rivers.

4. They more readily arrest the progress of a ship in chances of a collision, the concave side taking the water when this operation is performed. This is of great importance in preventing collisions, or backing off a shore.

5. They are very simple, and are easily applied to any paddle-wheel, at nearly the same cost as the common float, and THEY INCREASE THE SPEED MORE THAN ONE KNOT PER HOUR.

For license to use them (for which the charge is 10s. per horse-power), apply to the patentee, Mr. ROBERT SMART, 6, Grenville-place, Hotwells, Bristol, who will personally attend the fitting, if required, his travelling expenses being paid.

**AGENTS.** Messrs. George Lundell and Co., engineers and shipbuilders, Bristol.

W. J. Le Poivre, Esq., Southampton.

J. N. Smart, Esq., Swansea.

Thomas Mowatt, Esq., engineer, Leith, near Edinburgh.

Scott, Sinclair, and Co., Greenock.

W. H. Hutchinson, Esq., Hull.

W. R. Pitt, Esq., Dublin and Liverpool.

Jukes, Coulson, and Co., 12, Clement's-lane, London.

\* \* \* \* \* Testimonials of the highest order, on application to the patentee or his agents.

Bristol, December, 1844.

Just published, part I.

**COMBUSTION OF COAL, CHEMICALLY & PRACTICALLY CONSIDERED.** With coloured plates.

By CHARLES WYLLIAMS, Esq.

London: Simpkin, Marshall, & Co., and J. Weale—Birmingham: Wrightson & Webb.

**TO ENGINEERS, RAILWAY CONTRACTORS, &c.**—The PATENT RIVET COMPANY OF SCOTLAND, 28, BROWN STREET, Glasgow, MANUFACTURE (under the superintendence of the acting partner, Mr. Alexander G. Gilchrist) all descriptions of BOILER and TANK RIVETS, WOOD SCREWS, SCREW BOLTS, and NUTS, RAILWAY SPIKES, &c.

Orders executed with dispatch, and forwarded to all parts of the United Kingdom.

**NOTICE TO THE CONSUMERS OF**

**MESSRS. JOS. SYKES & SONS, SOLE CONTRACTORS**

of, and ONLY IMPORTERS of, these descriptions of STEEL IRON, being determined to adopt every practicable expedient to protect the fair trader in, and consumer of, these several marks, HEREBY GIVE THIS PUBLIC NOTICE, that from the 1st March, 1845, no IRON of the above marks has been, or will be, delivered by them, without the additional mark of [SYKES], being impressed thereon; such last-mentioned mark having been adopted by Messrs. Jos. Sykes and Sons for the further protection of themselves and the public. And all persons who shall impress the marks

upon any BAR-IRON, either with or without the additional mark [SYKES], will be proceeded against.—Hull, Jan. 1, 1845.

**WANTED, as HEAD VIEWER**, a person perfectly acquainted with Colliery Workings on an extensive scale, who will be required to devote the whole of his time thereto. References and testimonials as to ability will be strictly required into. Application to be made, by letter, to J. Jones, Jun., and Co., Oldham.

**AN ASSAY MASTER**, of twenty years' standing in the same situation, is desirous of procuring an APPOINTMENT. The advertiser is well versed in mining and assaying affairs, and will be found very useful to companies wanting such a person. No objection to go to foreign countries.—For further particulars, address "H. B.," care of the Editor of the Mining Journal, Railway and Commercial Gazette, 26, Fleet-street, London.

**TO MANUFACTURERS, MERCHANTS, & PATENTEES.** A respectable manufacturing firm, having an efficient traveller, who has established an extensive connection with mines, collieries, iron-works, and ironmongers, and who takes half-yearly journeys through Wales, Lancashire, Yorkshire, and several of the midland counties, are desirous of obtaining further COMMISSIONS for him. Satisfactory references will be given and required.—Address to "A. B. C.," Messrs. Dawson and Sons, advertising agents, 74, Cannon-street, City.

**TO BE LET, the LOTHBROKE MINE**, with a SMELTING FURNACE, MILL, and BLAST-ENGINE, for IRON ORE. It is at present on a small scale, and only a moderate capital is required to set it in operation, which may be increased to any amount; and the owner is willing to give every encouragement to an active intelligent tenant, who understands the smelting, hammering, and rolling of bars. The ore is of the richest quality, and close at hand, at a low price of sale. Distance from a seaport only seven miles, with other facilities for the convenience of a good business.—Address, for particulars, Mr. S. Woolcott, Sandhill-park, Taunton, Somerset.

**TO BE SOLD, TWELVE SHARES, or ONE-HALF, of the BUTSTONE MINE**, in the parish of Butterton, near Leek, in the county of Stafford.—This mine is situated in the immediate neighbourhood of the celebrated Ecton Mines, and is drained by a powerful water-wheel, having a plentiful supply of water throughout the year from the River Manifold. The mine contains an inexhaustible quantity of ZINC ORE, of good quality, of which there is now a considerable quantity being raised; there has also been sold upwards of £1900 worth of LEAD ORE, with sinking a depth of 19 yds. below the old workings. A new shaft has been sunk on the aid of the lode, 22 yards lower than the lead work, which now requires about 15 fathoms of driving. The whole of the machinery has been erected, regardless of expense, within the last ten years, and is in excellent repair. The proprietor is desirous of treating with a respectable partner, to carry the works into full operation.—For particulars inquire of Mr. George Twigg, 12, Newfield, near Ashbourne, Staffordshire.

**ELIGIBLE INVESTMENT**, in one of the oldest established PUBLIC MINING COMPANIES.—Messrs. HOGGART and NORTON are instructed to SELL, BY PRIVATE CONTRACT, from FIFTY to ONE HUNDRED SHARES in a MINING COMPANY, the average income of which has been 5 per cent. upon the paid-up capital for many years.—Particulars at their offices, 62, Old Broad-street, Royal Exchange.

**MINING SHARES.—A FEW ORIGINAL SHARES** remain to be APPROPRIATED in some valuable LEAD and COPPER MINES, the reports of which, as well as all necessary particulars, may be known on application to Mr. Thomas, 14, Poultry, London.

**MINE SHARES FOR SALE.—FOR SALE, TWO (29th) PARTS, or SHARES, of and in that highly promising and productive Tin Mine, BALLESWIDEN**, situated in the parish of St. Just in Penwith, Cornwall. Balleswidened is at present yielding large profits to the adventurers, whilst, from the immense quantity of tin discovered and extent of sets granted, a long continuance of dividends may safely be relied on.—For further particulars apply to Mr. W. Cock, spirit merchant, Penzance, January 28, 1845.

**IMPERIAL BRAZILIAN MINING ASSOCIATION.** Winchester-house, Broad-street, London, Jan. 27, 1845.—Notice is hereby given, that a SPECIAL GENERAL MEETING of proprietors will be HELD at the offices as above, on Thursday, the 30th of February next, at Eleven o'clock, for the purpose of electing an auditor, in the place of Emanuel Aguiar, Esq., deceased, and any proprietor who may intend to be a candidate, or to propose any person as a candidate, for the auditorship, must leave notice in writing of such intention with the secretary fourteen days before the day of election. Should a ballot be demanded by either of the candidates, the same will commence immediately, and be finally closed at three o'clock.

GEORGE THOMAS, Secretary.

**THE PATENT SAFETY FUSE**, FOR BLASTING ROCKS IN MINES, QUARRIES, and FOR SUBMARINE OPERATIONS.—This article affords the SAFEST, CHEAPEST, and MOST EXPEDIENT MODE of effecting this very hazardous operation. From many testimonials to its excellence, and the fact that the manufacturers have been favoured from every part of the kingdom, they select the following letter, recently received from John Taylor, Esq., F.R.S. &c.:—"I am very glad to hear that my recommendations have been of any service to you; they have been given from a thorough conviction of the great usefulness of the Safety Fuse; and I am quite willing that you should employ my name as evidence of this." Manufactured and sold by the Patentees, BICKFORD, SMITH, and DAVET, Cornhill, Cornwall.

**ANDREW SMITH'S PATENT WIRE ROPE**, FOR MINING, RAILWAY, and SHIPPING PURPOSES.—The Royal yacht, *VICTORIA* and *ALBERT*, *PENELOPE*, *VIRAGO*, *HERMES*, and several other ships in the Royal Navy, as well as the Merchants' Service, have been FITTED WITH ANDREW SMITH'S PATENT WIRE ROPE; it is about half the size and weight of hempen rope and one-third cheaper.—For particulars apply to A. Smith, 69, Prince-street, Leicester-square; White Lion-court, Cornhill; or at the works, Millwall, Poplar, London.

**CWMORTHIN SLATE COMPANY.**

Capital, £100,000; in 10,000 shares, of £10 each. Deposit, £1 per share.

PROVISIONAL DIRECTORS: Fred. Bamford, Esq., Manchester. W. B. Chorley, Esq., Tremadoc.

J. C. Budge, Esq., ditto. Joseph Ashhead, Esq., Manchester.

(With power to add to their numbers.)

BANKERS—London and Westminster Bank.

SOLICITORS—Messrs. Hoy, Blunt, and Co., Lombury.

SECRETARY—Thomas A. Corlett, Esq.

This company is formed for working the Cwmorthin Quarry, situated thirteen miles from Porthmadoc, twenty-five miles from Carnarvon, containing the same veins of slate as those of the most celebrated slate quarries in Merionethshire, and capable of being rendered one of the most extensive in that county.

The quarry has been fully proved, and worked to some extent—the nature of the metal has been efficiently tested, and found to be of a superior quality; it, therefore, only remains to raise capital sufficient to render the production commensurate to the outlay, the return of which cannot fail to be highly remunerative.

The present tenants hold under a thirty years' lease, and arrangements have been made whereby the fee simple can be bought upon most advantageous terms, on the acquisition of which the quarry might be worked without charge of royalty, or any interference.

In addition to the slate veins, this estate contains about 200 acres of land, available for various purposes connected with the works—while, for working the machinery to saw and plane slate, a fall of water supplies all the necessary power.

To carry out the objects of this company, it is proposed to raise £100,000, in 10,000 shares of £10 each, under the following regulations:

A deposit of £1 10s. per share to be paid on provision of the shares, for which a receipt will be given, exchangeable for the certificate of the company; and a further instalment of £2 per share in January, 1846, and £1 10s. per share payable in April.

No dividend to be declared for the space of two years from November 1, 1844; but the shareholders to receive interest at the rate of £4 per cent. per annum upon the calls made from the date of payment of such call.

The purchase of the leasehold and fee simple of the quarry, including the works, materials, and stores on hand, &c., may be estimated at £30,000; to which add the further expenditure and outlay for three years, in further clearing, adding extending the works, £10,000; with branch line of railway, cottages, materials, management, &c., £5500; making a total of £46,500.

After the first three years, the quarry should produce about 10,000 tons per annum, with a profit of nearly 15 per cent. on the above outlay, which profit may be expended continually to increase, as the quality of the slate improves the deeper the vein is worked.

Prospectuses, with further information, to be obtained from the secretary, at the company's offices, New Adelphi Chambers, to whom applications for shares should be made, in the following form:

I request you will allot to me shares, of £10 each, in the Cwmorthin Slate Company; and I hereby undertake to accept the same, or any less number allotted to me, to pay the deposit and all further calls duly made thereon, and to sign the company's Deed of Settlement when required.

Dated the \_\_\_\_\_ day of \_\_\_\_\_ 1845.

Name, Residence, Profession, and profession of a referee.

**OFFICE FOR PATENTS, 7, STAPLE INN, HOLBORN.**

J. MURDOCH (successor and late assistant to Mr. Roberts) informs INVENTORS and PATENTEES, that at this OFFICE they can obtain a full and complete

REFERENCE TO A CLASSIFIED LIST OF PATENTS.

(THE ONLY ONE EXISTING) which shows at one view all the Patents ever granted for any particular object, whereby they may save much trouble and expense, and procure information not otherwise obtainable. BRITISH and FOREIGN PATENTS OBTAINED, and SPECIFICATIONS carefully prepared, and REPORTS of ENROLLED SPECIFICATIONS furnished on moderate terms.

FINISHED and WORKING DRAWINGS executed with accuracy and despatch.

**RAILWAY WHEELS.**—Two years' very extensive experience has demonstrated that T. BANKS'S PATENT MODE of RENEWING the WORKING SURFACE of WHEEL TIRES, with STEEL, effects a SAVING of FIFTY PER CENT. of the expense of railway wheel tires above any other plan hitherto used.

For TERMS of LICENSE for England, Scotland, and Ireland, apply to T. BANKS, ENGINEER, GERMAN-STREET, MANCHESTER.

The following firms have taken Licenses to Steel Wheels in their respective localities:—Messrs. Robert Stephenson, and Co., engineers, Newcastle-on-Tyne.

Swayne and Bosvill, engineers, Millwall, Poplar, London.

Kitson, Thompson, and Co., engineers, Leeds.

**TO RAILWAY COMPANIES, ENGINEERS, AND MACHINISTS.**—FENTON'S ANTI-FRICTION METAL—A CHEAP SUBSTITUTE for BRASS in the STEPS and BEARINGS of STEAM-ENGINES and MACHINERY.

—possesses the following ADVANTAGES compared with that metal:—Increased durability, diminished friction, and consequent saving in consumption of oil, cheapness in first cost, not only in price, but also by a less specific gravity. It has been in use for some time on many of the principal lines of railway in the country.

Ingots, at 66s. per cwt., may be obtained from the patentees.

FENTON and BOTT, 5, LOWER MOSLEY-STREET, Manchester.

**TO ENGINEERS, RAILWAY CONTRACTORS, MINING AGENTS, IRONMASTERS, AND OTHERS REQUIRING FINE GREASE for MACHINERY and AXLES of every description.**—JOSEPH PERCIVAL'S IMPROVED ANTI-FRICTION GREASE is—after trials on machinery and axles of every kind where constant friction is kept up—admitted to be the most useful, economical, and best preparation of the kind ever offered to the public.

References to scientific and practical men can be given, and testimonials shown of its great excellence.—Samples forwarded on application at the manufactory, Green-street, Wellington-street, Blackfriars-road, London.

**THE ELECTRIC TELEGRAPH.—COOKE AND WHEATSTONE PATENT.**

The ELECTRIC TELEGRAPH has been adopted on the following LINES:—By ORDER of the LORDS of the ADMIRALTY, on the South-Western Railway, as a GOVERNMENT TELEGRAPH from the ADMIRALTY, Whitehall, to PORTSMOUTH, above NINETY MILES.

On the same line, as a Commercial Telegraph from Nine Elms to the Port of Southampton, 77 miles—with a branch to Gosport, 15 miles.

On the London and Blackwall Railway.

Great Western Railway, from London to Slough, 18 miles—the Windsor Telegraph.

Yarmouth and Norwich Railway, a "Single Way," 30 miles.

London and Dover Railway, from Tunbridge to Maidstone, a "Single Way," 15 miles.

Part of the Oldham Branch Railway.

Part of the Leeds and Manchester Railway.

Part of the Edinburgh and Glasgow Railway.

The Dalkey (atmospheric) Branch of the Dublin and Kingstown Railway.

In addition to the above, the Telegraph is about to be laid down on several "single lines" in different parts of England, Scotland, and Ireland.

Mr. Cooke is prepared to grant licenses for the use or erection of the Telegraph for entire districts of country, where the boundary can be accurately defined.

Mr. Cooke will also undertake to erect a Telegraph in any part of the United Kingdom for a fixed amount.

For further particulars apply to W. Fothergill Cooke, Esq., Kidbrooke, Blackheath; or to Robert Wilson, Esq., solicitor, 1, Cophall-buildings, London.

**ARCHITECTS AND ENGINEERS** contemplating the ERECTION of WORKS with ASPHALTED BRICKS and ASPHALT, as described in page 26 of the book of Instructions for Using *Synopal Asphalt*, have now an opportunity of SEEING the PARTICULAR MODE of LAYING OUT such WORK, at the ROYAL BOTANICAL GARDENS, REGENT'S PARK, where a reservoir is now being filled by this company, by order of her Majesty's Commissioners of Woods.

Feb. 1, 1845. J. FAIRBELL, Secretary.

Synopal Asphalt Works, Stangate, London.

**ESSEX AND SUFFOLK RAILWAY COMPANY.**

(Registered Provisionally pursuant to 7 and 8 Vic. cap. 110, s. 4.)

In 30,000 shares of £25 each; deposit £3 per share.

Solicitors (appointed by the promoters of the company)—Messrs. N. Stevens and Fearon, 1, Gray's Inn-square, London.

Bankers—London: Messrs. Barclay, Bevan, and Co., Lombard-street; Messrs. Strachan, Sir J. D. Paul and Co., Strand; and Messrs. Snyders and Snyders, Messrs. Oakes, Bevan, and Co., Maldon; Messrs. Sparrow and Co.

Local Agents—Hales: Messrs. Sperling and Harris—Braintree: Henry Jackson, Esq.

The proposed line (which has been long projected, and is now brought forward on the rejection of the Norwich and London direct railway by the Board of Trade), will communicate with the Eastern Counties Railway at or near Hatfield, and will form not only the most direct and perfect communication between the populous towns of Bury, Lavenham, Long Melford, Sudbury, Haverhill, Bocking, and Braintree, but will also, by continuing to Thetford, be the shortest line from Norwich to London, preserving the old coach road, and thus averting the ruin of existing interests which must follow upon a diversion of the present traffic. It will also, by a branch to the town and port of Maldon, open a communication between the inland districts of Essex and the sea—thus affording the greatest possible amount of accommodation to the district through which it will pass.

Instead of passing through a thinly-inhabited district, as is the case with the London and Norwich direct line, this railway will accommodate a population of upwards of 130,000 souls, seven market towns and three boroughs, returning each two members to Parliament; and the traffic, independent of passengers, will also be much assisted by the large quantity of beasts, sheep, &c., dead meat, and poultry, annually sent from the entire district to the London markets. The total length of the whole line, including the branch to Maldon, five miles in length, will be—Bury, 40 miles; to Thetford, 52 miles. It does not interfere with any ornamental property, there are no engineering difficulties, and the total cost is not expected to exceed £13,000 a mile. On this outlay the existing traffic is sufficient (after deducting 40 per cent. for maintenance of way, working power, management, and other expenses), to realise a dividend of 6 per cent. without taking into calculation the additional traffic that may fairly be calculated upon, from the import and export of timber, coal, coke, lime, and slates, corn, flour, wool, and other general merchandise from the port of Maldon into the manufacturing districts of Braintree and Maldon, and the whole of the agricultural interior of Essex.

Preliminary prospectuses may be obtained from the solicitors or local agents, and from D. McNeil, Esq., Angel-court, Thurgomorton-street, London; Messrs. Cardwell and Sons, Manchester; J. Greenes, Esq., Liverpool; Messrs. Collinson and Flint, Hull; and James Jamieson, Esq., Leeds, to whom applications for shares, in the usual form, and accompanied by a reference, are to be made.

**ARMAGH, COLERAINE, AND PORTLUSH RAILWAY.**

(PROVISIONALLY REGISTERED.)

Temporary Offices of the Company, 4, Great Winchester-street, Old Broad-street, London.

Capital £600,000, in 24,000 shares, of £25 each.

Deposit £1 7s. 6d. per share.

Prospectuses, with forms of application for shares, may be had of the solicitor to the company, George Ogilvie, Esq., 4, Great Winchester-street; James Watt and Co., solicitors, Dublin; Messrs. Boyle, Low, Pitt, and Co., College-green, ditto; John Cumming, Esq., Armagh; Wm. Green, Esq., Ballymoney; Robert McFarland, Esq., Coleraine; Mr. Thos. Crowdon, stock and sharebroker, Liverpool; Messrs. Cardwell and Sons, stock and sharebrokers, Manchester; or of the secretaries, at the temporary offices of the company.

**BORDEAUX, TOULOUSE, AND CETTE RAILWAY**

COMPANY, uniting the ATLANTIC with the MEDITERRANEAN, and forming a CONNECTION between the three important cities of BORDEAUX, TOULOUSE, and MARSEILLES.

Capital £4,900,000, in shares of £50 each, of which one moiety is to be subscribed in France, the other in Great Britain.

Deposit £2 per share, to provide the usual caution money, or deposit, required by the French Government, and which will be returned without any deduction whatsoever, but without interest, upon the production of the bankers' receipt, if this company shall not become the lessee of the railway, pursuant to a law of the present session of the French Chambers.

PROVISIONAL DIRECTORS.

CHAIRMAN.—M. F. E. DE EZELETTA, Baillié à Bordeaux.

M. Bruno Devès, Président du Tribunal de Commerce de Bordeaux.

M. D'Orléans de Bellegarde, Receveur Général des Finances du Département de l'Arriège.

M. Ed. Dotzaz, Maître de Poste de Bordeaux, et Administrateur des Messageries du Midi, et Membre du Conseil Municipal de Bordeaux.

M. Biquet, Entrepreneur des Transports accablés de Bordeaux à Toulouse et Marseille.

M. Chibet, Administrateur des Messageries à Toulouse.

M. R. Gélis, Administrateur des Messageries de Montpellier.

M. Saurin, Ancien Administrateur du Chemin de Fer d'Arles à Marseille, et Administrateur des Messageries à Montpellier.

M. J. Ricard, Administrateur du Chemin de Fer d'Arles à Marseille, et Agent de la Banque de Marseille.

M. Théophile Delord, Administrateur du Chemin de Fer d'Arles à Marseille.

IN ENGLAND.

DAVID SALOMONS, Esq., Chairman.

JOHN BASHAW, Esq., Deputy-Chairman.

Colonel Sir F. Hankey, G.C.M.G.

J. H. Atwood, Esq.

Adam Duff, Esq.

London.—Messrs. Hankey.

Paris.—MM. De Rothschild, Frères.

Solicitors.—Messrs. Williams and Gubbins, 7, Lincoln's Inn.

Prospectuses, with printed forms of application for shares, may be had of the company, No. 31, Lombard-street, London.—Notice that applications for shares in printed forms can be attended to.







only worked those parts that were chosen out for them. They could not leave the whole to buscones, or they would have the mine about their ears, and in ruin. Some of the works were those of research, in which buscones were not, of course, admitted.

The CHAIRMAN, in reply to a proprietor, said the sum paid off in the way of mortgage in London was 114,000*l.*, which was since July, 1838.—The SECRETARY said that in November, 1843, was the final payment on red scrip.—A PROPRIETOR complained of the irregularity of the receipts. As long as there was a mortgage required to be met, there was a regularity of receipts, amounting to 20,000*l.* a year; but now for about two years there had been no such thing as such an amount, although they were free from that burden. (Hear, hear.)—The SECRETARY said there was a large sum in hand when they commenced paying off the mortgage.—The PROPRIETOR could not make it out how they could pay off 20,000*l.* a year for five years, and for two years paid nothing to the proprietors, and there was now but the small available sum of 30,000*l.* in hand up to March next. With this prospect he saw no chance of a dividend. (Hear, hear.)

The CHAIRMAN would not undertake to be prophetic about a dividend, but he was not so depending as the honourable proprietor; and, with respect to the remarks made by the hon. proprietor, he could only say that the accounts of the association were at all times accessible to him or any other proprietor, that they spoke for themselves, nor was there any mystery in them to be unravelled, and that, on the present occasion, he could not do better than refer him for the required information to their commissioner in Mexico, Mr. Shoobred, now in the room.

Mr. SHOOBRED: The hon. proprietor must bear in mind that the returns, if not received here, had been largely increasing in Mexico, in the way of assets generally and in the amount of capital profitably employed there. In addition to which, a larger proportion than formerly of the ores was now received by the Rayas Mine owners, which had its effect also, and on this account alone, some 60,000*l.* or 70,000*l.* will, probably, become divisible between those owners and the association in the next six months, which, added to the other ores on hand, and not yet taken into account, would fully explain the smallness of the receipts alluded to by the hon. proprietor. (Hear, hear.)

Mr. MOORE reminded the hon. proprietor that there was 74,000*l.* now in hand in Mexico, out of which 50,000*l.* had been, or would be, shipped, if it could be done with safety in the present disturbed state of that country.—Mr. T. MOORE had no doubt that in case they went on in the same way as at present, a dividend would be forthcoming in the next six months.—A PROPRIETOR considered that the expected remittance, when received, would afford a dividend of 5*s.* per share.

Mr. LOUDON asked if the large sum of money claimed from the Mexican Government was expected to be approved of by our Government?—The CHAIRMAN said an application had been made to the Secretary of State on the subject, and the reply of Lord Aberdeen should be read to the meeting.—Mr. MATHER read the letter to the meeting, which stated that the subject had been referred to the Queen's Advocate-General, who had been urged to give his immediate opinion.

The report was then received, when a PROPRIETOR moved a vote of thanks to the chairman and directors, which was seconded by Mr. MOORE, and passed unanimously; the meeting then adjourned.

#### AUSTRALIAN AGRICULTURAL COMPANY.

The twenty-first annual general court of proprietors of stock in this company was held at the office, in Moorgate-street, on Tuesday, the 28th ult.

J. S. BROWNROGGE, Esq., M.P. (governor), in the chair.

The CHAIRMAN congratulated the meeting on the nature of the report which their secretary would read, and although there certainly existed causes of sincere regret, arising out of the depression which had so long overspread the field of their labours, and clouded their prospects, yet, despite these discouraging circumstances, the revenue of the company still prospered, and it gave him more than ordinary satisfaction to announce that a dividend of 15*s.* upon the shares had been declared. He would not trouble the meeting any longer, but would, without further remark, call on the secretary to read the annual report of the company's affairs.—The SECRETARY (Mr. George Engstrom) then read the report, of which the following is an abstract:—The directors were happy to state, from the reports of the commissioner, Capt. King, that there appear reasonable grounds for hoping, notwithstanding the unexampled depression which has pervaded all interests during the last four years in New South Wales, that symptoms of recovery are discernible, and that the colony is slowly, but gradually, recovering from its long depression. This was ascertained by a letter from the commissioner, dated 25th March, and also from a subsequent dispatch. The directors with concern had to report, that besides the ruinously low price of live stock, the falling off in the sale of coals, partly owing to the reduced means of the consumers, and partly to the increased consumption of wood fuel, and to some competition from mines not prevented from working by the restrictions of the Government, on the transfer of the Government mines to the company, had been such as to affect seriously the company's revenue from this formerly productive source. The directors, however, hoped that these temporary difficulties would soon disappear, when the settlers recover from their depression; and, in the mean time, no expense has been incurred, as the colliers are paid only in proportion to the quantity of coal raised, and, therefore, there has been a reduction in wages during the year 1843 to the amount of 11,000*l.* A further reduction in the salaries of the company's officers to nearly 21,000*l.* has served to counterbalance the falling off in other items of their accounts. In consequence of the difficulty experienced by the company in selling their surplus stock, they have slaughtered a quantity of sheep and cattle for the tallow and hides—a specimen of the former, sent home, has been considered good; this had the effect of raising the price of fat cattle, and sheep were in demand at 5*s.* 6*d.* each. Horses were also greatly sought for, and the company hoped to participate in these advantages. The following was the insignificant sale of live stock for the year 1843:—299 sheep realised 136*l.* 4*s.* 2*d.*; 25 horses and ponies, 486*l.* 11*s.* 1*d.*; 14 horned cattle, 81*l.* 5*s.* 5*d.*; 56 pigs, 22*l.* 7*s.* 2*d.*; realising only 726*l.* 2*s.* 10*d.* The commissioner informed the company of the health and improvement of the cattle, chiefly attributable to their having removed the inferior females from the herds, and replacing them by choice heifers; and that but little had been done in clearing lands for arable or other purposes. The directors confidently trusted that the long pending matter of the Deed of Settlement being approved and confirmed by the Government, would speedily be arranged to their entire satisfaction. A great diminution had taken place in the number of persons in the company's employ, even to the lowest scale consistent with the safety of that part of their property. The decrease in the sale of coals in 1843, compared with that of 1842, was 9089 tons; and the sales of the first six months of 1844 were 2541 tons less than in the corresponding period of 1843. The commissioner in June last reported that every probability existed of the privileges of a free warehousing port being extended to the port of Newcastle, from which he anticipated a considerable enhancement in the value of the company's property at that place, and he suggested the propriety of giving every encouragement to persons to settle there in the company's lands. To that subject the attention of the directors had been turned, as well as to a proposition for granting leases of some other portions of the company's estates, which the expected completion of the title deeds would greatly facilitate. The clip of the company's flocks had produced, in 1843, 730 bales of wool, being an increase of 139 bales over that of 1842, and at a trifling advance on the prices. The following is a summary of the company's operations for the year 1843:—

Revenue realised in New South Wales, from the sale of coals, live stock, rent, produce, &c.	£19,010 10 10
Revenue realised in England, from sales of wool, hides, horn, pigs, tallow, copper, office fees, &c.—(including wool unsold, estimated at £4400)	14,673 1 8
Making total revenue for the year	£33,683 12 6
Deduct expenses of management—New South Wales	£25,999 16 6
England	2,400 19 11
	£28,400 16 5

Showing a surplus revenue for the year of . . . . . £5,282 16 1

Which, taken with the small previously existing surplus, justifies the directors in recommending that a dividend of 15*s.* per share be declared on the paid-up capital of the company. In conclusion, the directors assured the proprietors that their exertions had been unabated to promote the welfare of the society, that every retrenchment consistent with its safety had been made, and they entertained the strongest hopes that the colony, as well as the company, would mutually prosper.

After the reading of the report, which was received with applause, and unanimously adopted, the meeting proceeded to the annual election of officers for the ensuing year, when John Locke, W. S. Davidson, and J. Hodgson, Esqs., the outgoing directors, were unanimously re-elected; the auditors who retired in rotation, and were also re-elected, were David Barclay, Esq., M.P., J. Abel Smith, Esq., M.P., G. S. Thornton and George Knox, Esqs.—Archibald W. Blane, Esq., was elected deputy-governor in the room of Mr. Brown; and Mr. Thornton announced himself a candidate for the vacant seat in the directory, occasioned by Mr. Blane accepting the office of deputy-governor.—The usual vote of thanks was then passed to the chairman and directors, and the meeting separated, apparently gratified with the result of the proceedings.

#### AUSTRALIAN TRUST COMPANY.

The half-yearly meeting of this company was held at the office, Moorgate-street, on Thursday, the 30th ult.—In the absence of John Abel Smith, Esq., M.P., BENJAMIN GREEN, Esq., presided.—From the report, it appeared that the sum invested on mortgage in Australia was 400,150*l.*—A dividend of 3 per cent. for the half-year (6 per cent. per annum) was recommended. The sum of 4725*l.* 6*s.* 9*d.* had been added to the reserve fund, which made that fund

19,590*l.* 18*s.* 2*d.* Advantage had been taken of the high price of the funds for paying off a considerable number of the promissory notes of the company, which bear 5 per cent. interest.—A brief discussion took place, after which a vote of thanks was passed to the chairman and directors, and the meeting adjourned.

#### BRITISH AMERICAN LAND COMPANY.

A special meeting of this company was held at the offices, Bucklersbury, on Wednesday, the 29th inst., to consider the expediency of constructing a railway from Boston to Montreal.—Mr. G. R. ROBINSON (the governor) having taken the chair, called on the deputy-governor to read a letter from Mr. Galt, their commissioner in Canada.—The communication pointed out the benefits which would arise to the company, in the event of its adopting the projected line, and strongly urged the proprietors to authorise the subscription of 20,000*l.* of railway stock. The provisional committee had given that authority, contingent, however, on a charter being obtained, or 800,000*l.* being raised, and the sanction of the court of proprietors.—On that subject, the CHAIRMAN invited discussion, intimating that the Act of Parliament empowered the company to hold stock of another corporation.—Mr. N. GOULD moved that the company should authorise the subscription of the 20,000*l.*, as he considered it could be procured without calls; but as to the advance by Government of 100,000*l.* which Mr. Galt anticipated, he entertained no such hope, and thought their commissioner had galloped at railway speed in most of his calculations.

Mr. CLARKE, in seconding the resolution, cautioned the proprietors against being led away by the sanguine hopes entertained by Mr. Galt; still they must all admit that if their subscription of 20,000*l.* would ensure the railroad, it would be the best act the company ever did. At present, their provinces were but lost property; but if the present project could be adopted, it would become highly valuable.—Sir JOHN BOILEAU congratulated the company on their accounts for the first time presenting a satisfactory balance.—The CHAIRMAN having warned the shareholders not to be over sanguine, still expressed his full approbation of the proposal, and trusted it would meet with general satisfaction and approval.—The motion was then put, and unanimously carried; and, after a vote of thanks to the board of directors, the meeting separated.

**RAILWAY COMMUNICATION BETWEEN IRELAND AND SCOTLAND.**—Now that railway undertakings are so general, and that projects are devised for opening lines on almost every available spot, we are astonished that one locality, appearing to us to present no ordinary advantages, has been totally overlooked. We allude to the towns of Fortpatrick and Dumfries, once great marts for Irish traffic, and thoroughfares for Irish communication with Scotland. Apart from the local advantages which we think such an undertaking would possess, in the facility which it would afford for travelling between Scotland, the North of England, and the entire of Ireland, we conceive that its influence would be commanding over the commerce of the three kingdoms. The great mineral productions of the North of England would find a speedy and profitable market in Ireland, whilst the benefit to that country would be reciprocal, in the revival of her northern trade with Scotland. The distance at present between Glasgow and Belfast is about 135 miles, and, from the precarious nature of the duration of the voyage (a circumstance, we need not observe, of the utmost importance to trade), many inconveniences must necessarily arise. These objections would, we think, be obviated by the adoption of a railway between Glasgow and Fortpatrick, via Dumfries, the distance being 169 miles; if this were met by another at Donaghadee from Dublin, Belfast, &c., the total would not, we think, take a longer time to accomplish than the old and inconvenient route—at any rate, we think the project, to which our attention has been accidentally called, worthy the consideration of the public.

**THE CORNWALL RAILWAYS.**—A special meeting of the committee of the Cornwall Railway, from Plymouth to Falmouth, was held on Saturday last at Truro, to receive a deputation from the Central Cornwall and Devon Railway committee. There was a full attendance on this occasion. The deputation stated that the Board of Trade, having passed its veto against the Central Line, their committee had determined to offer their surveys to the Cornwall Railway Company as far as Bodmin; and for which to be allowed one-third of the expense of surveying; that the line from Bodmin to Exeter is to be abandoned; whilst, on the part of the Central Cornwall and Devon committee, they required to be permitted to purchase a certain amount of shares in the Plymouth and Falmouth Line. At the same time, should these proposals not be acceded to, they were prepared to oppose the South Line in Parliament; but, from private sources, it is understood that these terms are likely to be complied with. At the last committee meeting of the Plymouth and Falmouth committee the following gentlemen were elected as directors:—Lord Falmouth, Mr. R. W. Fox (of Falmouth), Mr. Smith (of Camborne), Mr. Allen (of St. Austell), Mr. Gwatkin (of Fregony), Mr. Trevelyan (of Fowey), Mr. W. M. Tweedy (of Truro), Mr. Michael Williams, Mr. Robert Cotesworth, and Mr. R. Gray (of London).—The respective committees of the South and Central Lines met at Truro, on Monday last, to endeavour to effect an arrangement, when Lord Falmouth, Messrs. Michael Williams, J. Vivian, and others, were present. We are not aware of the express proposition submitted to the meeting, but it is understood that the Central will abandon their opposition to the Southern Line.—A committee has been appointed at Torpoint, to watch the progress of the bill with respect to the ferry tolls.

**PROJECTED RAILWAYS AND THE BOARD OF TRADE.**—The *Gazette* of last evening contained another official document on the above important subject, in which the Board have announced their intention of reporting in favour of the Barnsley Junction, Leeds and Bradford Extension to Skipton and Colne, Leeds and West Riding Junction, Manchester and Leeds (Heywood and Oldham Extensions), Manchester and Leeds (Burnley Branch), and the Churnet Valley Railway Scheme (from Macclesfield to Tamworth and Derby, with a branch to the Potteries); against the Leeds, Dewsbury, and Manchester—Manchester, Bury, and Rosendale (Heywood Branch), and West Yorkshire.—IRISH RAILWAYS:—The Board will report in favour of the Cork and Brandon, Great Southern and Western (Cork Extension only), and Waterford and Limerick; against the Great South-West (Ireland) Direct; and recommend the postponement of the Dublin, Carlow, and Wexford—Dublin, Wexford, Waterford, and Carlow—Dublin and Wicklow, and Kilkenny Junction.

**ESSEX AND SUFFOLK RAILWAY COMPANY.**—We are glad to observe, that on the rejection by the Board of Trade of the London and Norwich Direct Line, this project, which has been long in contemplation, is again brought before the public. Without any of the objections attached to the former proposition, this line promises all its advantages, both in respect of convenience to the public, as regards facility of traffic and transmission of goods, and to the interests of the individual shareholders. We need not mention that it proposes to pass through the populous towns of Bury, Lavenham, Long Melford, Sudbury, Halstead, Bocking, and Braintree, connecting them by the most direct route with the metropolis, to establish the importance and utility of the line to these commercial districts; a branch is also to communicate with Maldon, and the undertaking will, subject to some contingencies, probably be extended to Thetford. It is evident, therefore, that the advantages of the proposed line are not confined to the immediate localities through which it will pass, but are also offered to the Norwich and Brandon Railway, inasmuch as the Norwich traffic must otherwise take the more circuitous route by Ipswich, or else be transferred to the Eastern Union Extension—either alternative as disadvantageous to the several adjacent districts as to the Norwich and Brandon Company. It is, therefore, with satisfaction that we perceive the introduction of a project likely to benefit all parties, and to supply that want of speedy communication which is at present so much and seriously felt.

**SAMBRE AND MEUSE RAILWAY.**—This useful and important undertaking, to which we have adverted on more than one occasion, is, we regret to say, threatened with competition. The relative claims of the two contending parties will be best ascertained by a brief sketch of the intentions and propositions of either. The Central Line, by which title the company last projected is designated, is indisputably calculated to increase the commerce of Belgium to a vast and lucrative extent; the transit of ore and the traffic in minerals, which at present is limited, and even paralysed, though the country possesses natural advantages second to none, would by the adoption of this line become extended, and thus beneficial not only to the individual locality, but to the augmentation of the national wealth. The transport of coal and iron, hitherto retarded to an extent which involves almost the idea of its utility, would be so facilitated by the line in question, as to afford the most stupendous advantages to the contiguous states—thus, Brussels, by means of its canal navigation, would be supplied with the most valuable articles of consumption from France, for the terminus of the canal and railway are the same—viz., Charleroi; and France will, independent of the market thus opened for her manufactures, be benefited with the advantages of a large and uninterrupted supply of coal, iron, timber, staves, bark, marble, stone, slate, and iron from the rich metallurgic districts between the Sambre and Meuse. Such will be the advantages offered by the Central Line in respect of trade, inasmuch as it traverses directly through those localities where lie in incredible abundance the mineral productions of the country. It will be sufficient to state, that Charleroi, the centre and very bed of the coal mines, is its starting point, its route being then direct through Morlaix, St. Aubin, Florennes (with a branch to Couvin), Stave, and Oret, to prove the immense value of this project, and, unless a superior be devised, its claims on the Belgian Government for support. These being the merits of the Central Line, a few words will suffice to point out the main features of its rival, the Western Line. Instead of commencing from Charleroi, as the Central, its starting point is to be Marchiennes on Pont, where it joins the State Railway, and then, ascending the valley of Eau-d'Heure, and descending that of the Virvain, reaches Virieux, which is its terminus of arrival, avoiding all the districts where iron and coal are found, after traversing a country presenting one continual course of difficulties, which would require tunnels at every bend, or cutting through innumerable projecting rocks, and after a circuitous route six miles longer than the Central, and at a differential cost of 200,000*l.* more than the latter. Another and most distinguishing feature of the Central Line is, that the tolls required are one-third less than those demanded by the Western Line, thus conferring a lasting benefit upon the district traversed by the line, and upon the country at large.

#### INFRINGEMENT OF PATENT—WALKER'S AXLE-TREES.

VICÉ-CHANCELLOR'S COURT—JAN. 23.

**WALKER v. HILL.**—Mr. J. RUSSELL (with whom was Mr. Daniel) applied to the court on behalf of the plaintiff in this case (one of the partners in the Patent Shaft and Axle-tree Company), for an injunction to restrain the defendant, his workmen, servants, and agents, from making, manufacturing, selling, or disposing of, or causing or procuring to be made, manufactured, sold, or disposed of, any axle-trees or other cylindrical or conical shafts or bars, made or manufactured according to the pretended invention in the letters patent of the 14th day of May, 1844, in the bill mentioned, or otherwise in infringement or imitation of the invention of James Hardy, mentioned in the letters patent dated the 4th day of April, 1835, in the said bill also mentioned; or from in any manner making, using, or putting in practice, the said invention of the said James Hardy, or any part thereof, within England and Wales, or the town of Berwick-upon-Tweed, until the defendant shall have fully answered the said bill, and the court shall make further order to the contrary.—The object of the motion was to have the plaintiff's right of patent protected from infringement.

The affidavit of R. Stephenson, civil engineer, set forth, that, in his judgment, the mode of manufacturing described by the defendant Hill is, although inferior, an imitation of the mode and an infringement of the patent granted to J. Hardy.

Of E. Bury, engineer of the locomotive department of the London and Birmingham Railway, that he is well acquainted with the process of manufacture invented by James Hardy, and used by the plaintiff, and that the axles so manufactured have been exclusively used on the London and Birmingham Railway for the last five years; that the process described by the defendant Hill forms part of the improvement claimed by the plaintiff, but in an inferior degree.

Of Daniel Gooch, resident engineer of the locomotive department of the Great Western Railway, that the axles manufactured by the plaintiff are used on the Great Western Railway, and that he considers, from the grain of the iron being made by their work to run in different ways, the axle presents, in every point of its surface, an equal resistance to any strain to which it may be subjected; and that the mode of the defendant is the same in principle as that of the plaintiff, though less perfect.

Of R. B. Dockray, resident engineer of the London and Birmingham Railway, that the axles manufactured by the plaintiff have for several years been used on the London and Birmingham Railway, and that they are, in his judgment, the best that can be obtained; that the mode of manufacture described by the defendant's specifications, is an inferior imitation of the plaintiff's mode.

Of John Henderson, of Smethwick, that the mode of manufacture of axles, as described by the defendant, is the same in principle as that of the plaintiff, and that in his judgment the invention of Hardy is of great public utility.

Mr. Wigram appeared for the defendant. His HONOUR said that the injunction must be granted, without prejudice to any future motion or proceeding which either party might be advised, or deem it fit to make hereafter.—Injunction accordingly granted.

At the Bristol and Gloucester meeting, on Thursday, a long discussion took place respecting the wide and narrow gauge, when it was stated that, in all probability, the line from Birmingham to Gloucester would be altered from the narrow to the wide gauge—to make it uniform with the Great Western, the Bristol and Gloucester, Bristol and Exeter, and so on to Falmouth, and, probably, to the Land's End. It was also stated that the proposed South Wales line is to be constructed on the wide gauge system.

**RAILWAYS AND THE COAL TRADE.**—There is one line of railway lately projected which more than any other appears to us to present paramount advantages. The enormous price of coal has always been severely felt and loudly complained of in the metropolis; rich and poor alike suffer—the latter to a fearful degree. Now, though we do not join with those who, in a railway company, see all their grievances redressed, and hail a new line as the panacea of all their evils—though we do not conceive that the effect of a locomotive is to remove every misfortune, nor regard a steam-engine as the harbinger of every blessing—we confess we are inclined to attach more than ordinary importance to the proposed formation of a line which will immediately connect the metropolis with a locality which is the very bed and centre of the finest coal. The benefit can scarcely be over-rated which must arise from a direct railway communication between the vast and valuable coal-fields of York and the densely populated cities of Manchester, Birmingham, Sheffield, and London. Apart from the advantages accruing to the smaller towns thus brought in connexion with manufacturing districts—apart from the beneficial results arising from a facility of transit between a large manufacturing town and an improving maritime port—if a project be devised whereby a valuable but rare commodity, an article of unlimited consumption, while an absolute necessity of life, can be furnished at a rate 25 per cent. cheaper than at present—then we repeat, apart from all other contingent or collateral advantages, such an enterprise must be pre-eminently useful. These remarks have been elicited by our notice of a prospectus for the construction of a line extending to the port of Goole—a direct communication from the metropolis, and with the commercial towns of Sheffield, Barnsley, Manchester, Birmingham, and the mineral and manufacturing districts of Derbyshire and Staffordshire. Our readers are, doubtless, aware that Goole is a town a few miles from a locality in which coal mines are found in the greatest abundance, and of the very first quality; but, in consequence of the difficulty of transmission, this rich field of mineral is comparatively deserted—while the facilities of shipping it at Goole would have otherwise rendered it accessible and profitable. The proposed line is to run through this valuable coal property direct to the metropolis, and with a branch to Goole. Here, then, three distinct advantages at once present themselves to the mind:—the increased export of coal from Goole—the transmission of manufactures from Sheffield, Birmingham, Manchester, &c., to Goole also, for speedy shipment—and the ready transport of coal to London—thus insuring an extended traffic to the manufacturing districts, an inconceivable boon on the whole metropolis, and, from the greater facility of exportation, a material increase in the revenues of the country.

**EXPLOSION OF A STEAM-BOILER.**—On Tuesday last, a melancholy accident occurred on the Manchester and Leeds Railway, by which unhappily three lives were lost. It appears that the engine, *Irak*, had been lately undergoing some repairs, and was considered at the time of the accident in a fit condition to work on the line. At that period, the engineer was examining the connecting-rods, and the stoker was packing one of the glands, as it was intended that the *Irak* should take the quarter past seven train to Leeds; at six o'clock, however, while the preparations for the trip were yet making, a sudden explosion took place, causing the immediate death of those engaged upon the engine, three in number. On examination, it was found that the explosion occurred in the fire-box at the hinder part of the engine. The crown of the fire-box was horizontal, made of copper plate, three-eighths of an inch in thickness, and it seems to have given way first at the side nearest the fire-door. On this crown giving way, the whole contents of the boiler would rush into the fire-place, and blow out the bars, &c., into the engine-pit below. The expansive force of the steam has considerably depressed the brick floor of the engine-pit—to the extent of even four inches. The engine at the time was attached to the tender, which was merely, however, overturned. The *Irak* was made by Messrs. W. Fairbairn and Co., and was considered the best on the line; it has been four years on the line, having run in that period an aggregate distance of 76,800 miles. The following are the dimensions of its principal parts:—Its cylinder, 14 inches in diameter, and 18-inch stroke; boiler, 8*ft.* 6*in.* in length, and 3*ft.* 5*in.* by 3*ft.* 8*in.* in breadth; height above the bars, 3*ft.* 4*in.*; area of the fire-grate, 11*ft.* 2*in.*; area exposed to radiant calorific, 52*ft.* 8*in.*; area of tuben surface exposed to the contact of the heated air, 416*ft.* 2*in.*; dimensions of steam way to cylinder, 11*in.* by 14*in.*; the two driving-wheels were 5*ft.* 6*in.*, and the four supporting wheels 3*ft.* 6*in.* each; the engine in working order weighed 15½ tons, and cost 1430*l.* It had, as usual, two safety-valves; after the accident, one was found in working order, but the spring-box was broken; the other was fast—perhaps, by the result of a blow.—An inquest has since been held on the bodies of the three men who lost their lives by the explosion. The only material evidence as yet elicited elucidatory of the cause of the accident was that of the engine fitter, Joseph Clarke, who, in the course of the inquiry, deposed that he believed the man who was getting up the steam had been complaining of the difficulty of getting it up, and was using wood; and, in another part of the evidence, the same witness mentioned that the men worked by contract, and it was their interest to save as much coke as possible. Now, it has occurred to us, that here may be found a solution of the cause of the explosion: the man had been heard to complain of the difficulty he experienced in getting up the steam, and, moreover, it was his interest to save the coke. Is it not possible that the effect of both these circumstances was his determination of using wood? A furious fire was thus speedily and economically obtained from the offal timber about the works; by this, the flames spread fiercely through the tubes—the steam was generated in a proportionally over-abundant quantity—and Salter's balance then screwed up to between 80 lbs. or 100 lbs. to save the steam; and thus, if even an extra weight was not put upon the valve, an explosion almost necessarily ensued. These suggestions we have thought it our duty to point out, as matters, at least, for investigation, not only into the immediate causes of the accident, but into the broader principle involved in the contract system.

**DEATH FROM CARBONIC ACID.**—A melancholy and somewhat extraordinary instance of the effects of this noxious element occurred on Sunday last at Birmingham. About one o'clock on that afternoon, Mr. Woolley, a paper-stainer, went into his cellar for some colours, of which there were three tubs in a liquid state. On his not returning for some time, the servant went down, and discovered her master lying dead by the side of one of the tubs. On the inquest, Mr. Farleton, a surgeon, deposed to having made a careful post-mortem examination of the body, and could attribute the cause of death only to the agency of the carbonic acid escaping from the colour. It appeared, that on other occasions the deceased had complained of faintness on returning from the cellar; and it was moreover stated by a juror, connected with the trade, that the various colours, when mixed with water, emitted a deleterious effluvia, and that double-carbonic acid gas was freely generated—10 per cent. of that gas being sufficient to cause death. The jury returned a verdict accordingly.



**COLLEGE OF CHYMISTRY.**—At a MEETING of the Provisional Council of the College of Chymistry, held on Tuesday, the 14th of January inst. (the Marquis of Downshire in the chair), a COMMITTEE was appointed to ORGANIZE the INSTITUTION and prepare its Laboratory, and for other purposes connected therewith.—Proprietors and full particulars may be obtained at the office, No. 7, St. Martin's-place, Trafalgar-square, London.

Life subscriptions, £10 10s.—annual, £1 10s.—A list of subscriptions will shortly be published.

JOHN GARDNER, M.D., Provisional Secretary.

January 18, 1843.

### SAMBRE AND MEUSE CENTRAL RAILWAY COMPANY.

Capital £420,000, in shares of £20 each.—Deposit £1 12s. 6d.

**Directors.**  
M. Jean Wautlet, President of the Coal Committee, and Vice-President of the Chamber of Commerce of Charleroi.  
M. Victor Joseph Dreyer, merchant, Lodolinsart, near Charleroi.  
M. Auguste Delavre, C.E., Brussels.  
Sir Valentine Blake, Bart., M.P.  
George Thomas Pitter Esq., High Beach, Essex.  
Major Harriott, R.E., Grove House, Twickenham.  
Augustus William Hillary, Esq., 56, Cadogan-place.  
Nathaniel Ogle, Esq., Heath-lane Lodge, Twickenham.

**BANKERS.**  
Messrs. Bruggman and Fils, Brussels.  
Messrs. Masterman, Peters, and Co., London.

The numerous applications for shares in the capital stock of this company are now under consideration, with a view to an immediate allotment of the reserve made for this country. Prospectuses are ready for delivery, and may be had at the office.

15, Old Jewry Chambers, Feb. 1, 1845.

### THE PATENT GALVANISED IRON COMPANY

to announce to the public, that they are prepared to SUPPLY ROOFING, SHIP SHEATHING and FASTENINGS, CHAINS, and the endless variety of articles to which iron, not subject to rust, may be applied.—Testimonials may be seen by application at the office, 3, Mansion House-place, London.

**CAUTION.**—THE PATENT GALVANISED IRON COMPANY having ascertained that certain PARTIES are INFRINGING their PATENT by the MANUFACTURE and SALE of a SPURIOUS and COUNTERFEIT ARTICLE, to the injury of the company and the detriment of the public, hereby give NOTICE, that this COMPANY have the SOLE PRIVILEGE of manufacturing and selling IRON COATED WITH ZINC, commonly called "galvanised iron," and that they will inflict the utmost PENALTIES of the law upon all PERSONS MANUFACTURING or SELLING the same without their authority, as well as upon all persons buying or using any galvanised iron not manufactured by them, or sold by their authority.

3, Mansion House-place, London, Jan. 24, 1845.

### SOUTH METROPOLITAN PURE WATER COMPANY.

Capital, £200,000, to be increased to £430,000, if deemed expedient, in shares of £10 each. Deposit 10s. per share.

**TRUSTEES TILL THE ACT IS OBTAINED.**  
Robert Biddulph, Esq., Charing-cross.  
Henry Weston, Esq., Borough Bank.

**PROVISIONAL COMMITTEE.**  
CHAIRMAN—JAMES HORNE, Esq., F.R.S., Assoc. Inst. C.E., &c., Clapham-common.  
Henry Bird, Esq., Haverstock-hill.  
Hugh Bowditch, Esq., Norwood.  
J. B. Byron, Esq., Lambeth.  
E. Doubleday, Esq., Blackfriars-road.  
T. England, Esq., Surrey-square.  
Capt. Ewbank, Charles-street, St. James's.

**BANKERS.**  
Messrs. Cocks and Biddulph, Charing-cross.  
Messrs. Weston and Young, Borough Bank.

**ENGINEERS.**—James Easton, Esq., the Grove, Southwark.  
Messrs. Birch and Bramah, 5, Great Winchester-street.  
John Galworthy, Esq., 19, Ely-place.

This company is established for the purpose of affording to the inhabitants of the south side of the Thames a pure and abundant supply of water. It is to be taken from the River Wand, but in such a manner as to avoid all injury to the mill and other property on the stream, and the heavy compensation consequent thereupon, which has hitherto proved the great obstacle to the use of its water for the purposes proposed.

All impurities of whatever description, now finding their way into the Wand, will be conveyed electrically, and the water in this perfect state will be taken above the tide mill at Wandsworth (where will be erected the necessary works), and thence pumped to reservoirs on Wandsworth-common and Brixton-hill, where an elevation is found sufficient for the most efficient supply to the districts in question.

The waters of this river have been pronounced by unquestionable authority to be the purest and most wholesome in the neighbourhood of London, and their abundance has again been tested during the past summer; the result shows that not less than 24,000,000 gallons flow daily into the Thames—a quantity equal to four times the daily supply of the three existing water companies south of that river.

The abundance of water, added to a very general opinion that it would be eagerly taken in other parts of London now supplied from the Thames, has determined the projectors to cross that river at Battersea, and extend to the inhabitants of Chelsea the luxury of wholesome water. Accordingly estimates have been made, and the Standing Orders of Parliament complied with, so as to enable the company, if the increased amount of capital above-mentioned be subscribed, to carry out this object.

Personal application has proved that an ample tenantry will be obtained, so as to guarantee the receipt of a large and increasing dividend.

Prospectuses may be had, and application for shares made, to either of the solicitors, and Messrs. Edward Ellis and Co., 53, Threadneedle-street.

**FORM OF APPLICATION FOR SHARES.**  
To the Provisional Committee of the South Metropolitan Pure Water Company.  
Gentlemen,—I request you to allot me shares in your proposed company; I will accept the same or any less number, and pay the deposit thereon, and sign the necessary Parliamentary and other contracts when required.—Dated this day of 1845.

Name .....  
Address .....  
Occupation .....

**EUROPEAN LIFE INSURANCE AND ANNUITY COMPANY.**  
Instituted Jan. 1819.—Empowered by Special Act of Parliament, 7 and 8 Vic., cap. 48.  
OFFICE—No. 10, CHATHAM-PLACE, BLACKFRIARS.

**BOARD OF DIRECTORS.**  
JOHN ELLIOT DRINKWATER, Esq., 80, Chester-square, Chairman.  
Thomas Henry Call, Esq., 1, Mount-street, Grosvenor-square.  
John Rivett Carnac, Esq., 46, Devonshire-street, Portland-place.  
John Greathed Harris, Esq., 2, Old Palace-yard.  
Henry H. Harrison, Esq., 1, Percy-street, Bedford-square.  
Thomas Hunt, Esq., 11, Manchester-square.  
William Faxon Jervis, Esq., 59, Cadogan-place, Sloane-street.  
Alexander H. Macdonnell, Esq., 44, Parliament-street.  
William Sargent, Esq., Treasury Chambers, Whitehall.  
Frederick Silver, Esq., 10, James-street, Buckingham-gate.  
John Stewart, Esq., 22, Portman-square.  
Geo. James Sullivan, Esq., 1, Arlington-street, and Ditcham-grove, Petersfield, Hants.

John Thoyts, Esq., 8, Foley-place.

This Old Established Society has recently received ADDITIONAL POWERS, by Special Act of Parliament, and affords FACILITIES in effecting INSURANCES to suit the views of every class of insurers.

PREMIUMS are received yearly, half-yearly, or quarterly, or upon an increasing or decreasing scale.

Two-thirds of the profits are added semiannually to the policies of those insured for life; one-third is added to the guarantee fund for securing payment of the policies of all insurers.—Those who are insured to the amount of £500 and upwards for the whole term of life, are admitted to vote at the half-yearly general meetings of the proprietors.

**Annual premium for insuring £100 on a single life:—**

Age next birthday. 20. 30. 40. 50. 60.  
Premium .....£1 18 1.....£2 8 1.....£3 2 6.....£4 5 6.....£5 5 8

DAVID FOGG, Secretary.

**LA'MBERT ON DEBILITY, NERVOUSNESS, AND ALL DISORDERS ARISING FROM EXCESS, &c.**  
"He who in pleasure's downy arms  
Ne'er lost his health, or youthful charms,  
Just published, the Seventh Edition, in a sealed envelope, price 2s. 6d.; or free by post to any address, for 3s. 6d.

**SELF-PRESERVATION: A Popular Essay on those concealed disorders of the generative system, originating in solitary habits, youthful excess, or infection, and terminating in local and constitutional weakness, nervous debility, melancholy, incapacity, gonorrhoea, syphilis, indigestion, insanity, consumption, &c., with plain directions for their treatment and cure. Illustrated with cases. By SAMUEL LA'MBERT, consulting surgeon, 9, Bedford-street, Bedford-square, London; Honorary Member of the London Hospital Medical Society, Licentiate of Apothecaries Hall, London, &c.**

"The various positions of lover, husband, and parent, are the inherent privileges of mankind, and but for the accidents of mortality, would be awarded equally to all. To such, among others, this essay addresses itself; and, by its personal, many questions may be satisfactorily adjusted that admit of no appeal, even to the most confidential friend."

Sold wholesale by S. Gilbert, 51 and 52, Paternoster-row; retail by Starie, 23, Temple-lane; Hanny and Co., 63, Oxford-street; and Gordon, 146, Leadenhall-street.

At home daily, from nine to three, and from five till eight; and immediate replies sent to all letters, if accompanied by the consultation fee of £1 for advice, &c.

9, Bedford-street Bedford-square, London.

Just published, the Fourteenth Edition, price 2s. 6d.; free by post, 3s. 6d.

**THE SILENT FRIEND: a medical work, on Human Frailty.**  
Nervous Debility, constitutional weakness, excessive indulgence, &c., with observations on Marriage, &c. By R. and L. PERRY and Co., surgeons, London. Published by the authors, and sold at their residence; also by Strange, 21, Paternoster-row; Hanny and Co., 63, Oxford-street; Noble, 109, Chancery-lane; Gordon, 146, Leadenhall-street; Parkes, Compton-street, Soho, London.

The CORDIAL BALM OF SYRIACUM is a stimulant and renovator in all spasmodic complaints. Nervous debility, indigestion, asthma, and consumption, are gradually and imperceptibly removed by its use, and the whole system restored to a healthy state of organisation. Sold in bottles, price 11s. and 3s.

PERRY'S PURIFYING SPECIFIC PILLS have long been used as the most certain remedy for scorbutic complaints of every description, eruptions of the skin, pimples on the face, and other disagreeable affections, the result of an impure state of the blood. These pills are perfectly free from mercury, calomel, and other deleterious drugs, and may be taken with safety without interference with or loss of time from business, and can be relied upon in every instance. Sold in boxes, at 2s. 9d., 4s. 6d., and 11s.

Messrs. Perry and Co. may be consulted at their residence, 19, Berners-street, Oxford-street, daily, from eleven till two and five till eight. On Sundays from ten till twelve.

### PATENT IMPROVEMENTS IN CHRONOMETERS.

WATCHES, AND CLOCKS.—E. J. DENT, 52, Strand, and 33, Cockspur-street, Watch and Clock maker, BY APPOINTMENT, to the Queen and His Royal Highness Prince Albert, begs to acquaint the public, that the manufacture of his chronometers, watches, and clocks, is secured by three separate patents, respectively granted in 1836, 1840, 1842. Silver lever watches, jewelled in four holes, 6s. each; in gold cases, from £2 to £10 each. Gold horizontal watches, with gold dials, from 8s. to 12s. each. DENT'S PATENT DIPLIENDSCOPE, or meridian instrument, is now ready for delivery. Pamphlets containing a description and directions for its use 1s. each, but to customers gratis.

### ANDALUSIAN MINING ASSOCIATION.

Registered under the 18th section of the 7th and 8th Vic., cap. 110.

**BOARD OF DIRECTORS.**  
Samuel Brown, Esq.  
William Alleyne Culpeper, Esq.  
Lieut.-Colonel G. D. Hall  
Major Lewis A. Hall  
Major Thomas G. Harriott  
(All of whom, with one exception, hold 20 shares and upwards of £100 each.)

**BANKERS.**  
London.....Messrs. Weston and Young.  
Seville.....Messrs. Cahill, White, and Beck.

**AUDITORS.**—Major L. A. Hall; Michael Collin, Esq.  
**STANDING COUNSEL.**—W. M. James, Esq., 6, Stone-buildings, Lincoln's Inn.

**CHIEF SUPERINTENDENT IN SPAIN.**—Mr. Frederick Burr.

**SECRETARY AND SOLICITOR.**—John T. Wright, 15, London-street.

This association was formed about two years ago, under the title of "the Villaverde Mining Association," for working a lead mine in the neighbourhood of Seville. A considerable amount of work has been done in this mine, and the operations are now driving on a large vein of promising character, which gives every reason to believe that a bunch of ore is close at hand. The samples of ore on assay in this country gave 75 per cent. lead, with a small admixture of silver.

In the course of last summer the association acquired four additional lead mines and eight valuable copper mines in the province of Andalusia, in all of which a certain amount of preliminary work has been effected towards laying open the veins and ascertaining their value.

The following passages from recent reports of Mr. F. Burr, the company's experienced superintendent in Spain, relative to such of the mines as have been examined, will sufficiently convey the best idea of their character and indications:—

1. This mine is upon a noble vein, and one which offers great facilities for working. We found the discovery of the description fully borne out by the reality, the vein being of enormous size, cropping out to the surface in large rocks, in places seven or eight feet high, and producing good stones of lead ore, there cut into by a small stream. Besides this, other parts of the vein were deeply tinged with green carbonate of copper; and yet, extraordinary to say, this magnificent vein was wholly untainted, though an opportunity was afforded by the intersection of a deep barranco (ravine) of laying it open to a considerable depth by a level, at a comparatively small expense. I doubt, indeed, whether in any other country in Europe (and I am acquainted with most), a vein could be found untainted which showed at the very surface such unusual indications of mineral wealth.

Its size cannot be stated with accuracy, but it is certainly not less than ten to twelve feet, and probably in places even more. The shaft had hardly penetrated half way through the lode, but the yellow copper ore was increasing in quantity, and becoming more strongly mixed with the veinstone—affording every indication of a bunch of ore being not far distant. The vein may not only be tried, but, to a certain extent, brought into an effective state of working in a space of time not likely to exceed a year and a half, and with an outlay which could hardly exceed £2000 to £3000. It is intersected by a great vein of lead, rich in silver.

2. In this mine the vein does not at this point exceed a foot in width, but of this some inches are a continuous vein of rich copper ore, worth, I should say, £15 to £20 per ton. This mine promises well, and as we are already in a bunch of ore, may be looked to as likely to give early returns.

3. In this mine the ore is a rich oxide of iron, without any mixture of spar or earthy matter, and containing, I have no doubt, 60 or 70 per cent. of metal. Of this ore thousands of tons might literally be quarried out by mere open cutting. Judging from analogy, there is every reason to believe that copper lies below (the iron vein), as this vein presents, although on a smaller scale, exactly the same appearances which the Rio Tinto must have done previously to its being worked. Should the vein make copper in depth, it will certainly form a very productive and lasting mine, very similar to that of Rio Tinto, which, after so many centuries of working, still remains unexhausted. This mine is in the immediate neighbourhood of the celebrated Rio Tinto Mines, belonging to the Spanish Government, but leased to private parties, and stated to produce 300 tons of fine copper annually.

4. This mine is one the success of which may be looked upon as established. We have here a bunch of yellow copper ore within a few yards of the surface, with every indication of its continuance and expansion into a valuable mass in depth. The work done by the company in this mine consists of sinking a shaft eleven yards below the old works, in doing which we have found a leader or regular vein of yellow copper ore, intermingled with the green carbonate, and about four inches in width. About a ton of ore was broken in sinking the lower part of the shaft, where we were in whole ground; the value of it may be £12 to £15 per ton. It is added, that not more than £1500 to £2000 will be required to put the mine in a productive state, and that the time could not possibly exceed a year and a half.

5. The copper vein in this mine is in continuation of the one now in produce in the adjoining mine, worked by native proprietors.

6. The lode here is in width about twelve feet, chiefly composed of gossan and porous calcareous spar. That this immense lode is in depth rich in copper seems the fair inference from all that can be seen of its upper portion.

If the lodes held down in depth, as they promise on the surface, the success of a valuable mine would then be established. The expense of this trial, as that of the other mines in this district, I can at present only roughly estimate, but should not imagine, that previous to meeting with some decisive result, an expenditure of more than £1200 to £1500 would be required.

7. It is evident, that a large quantity of metal, apparently copper, has here been extracted. I am informed, also, that this slag has been found on assay to produce gold, thus rendering it probable that substances still more valuable than copper were obtained here.

8. This vein is two and a half feet wide, promising in appearance, and containing green and yellow copper ore.

From these statements, it will be seen, that according to the estimate of a most able and experienced mining engineer, on the spot, the average expenditure for bringing the mines to a productive result will be about £2000 each, and the time required about a year and a half.

The mines, with one exception, are held under the Spanish Crown, for such period as the association may choose to work them, according to the mining laws of Spain, by which the rights of farmers are especially protected, whatever political changes may affect the Government. The property can be sold or transferred, as if owned by natives, and, in case of war even, is exempt from confiscation. The royal dews are far more moderate than those generally rendered in this country, being 1-20th.

This property, therefore, whether considered in reference to the extent of the veins, the variety and richness of the ores, the general indications of metallic abundance, the geological formation of the district (which allows the works to be carried on by means of drifts or adits, without the necessity of expensive machinery), or the cheapness of labour, justifies the sanguine expectations which are entertained of highly valuable returns. At the same time, any of the mines, that, on further progress, fail to sustain the present anticipation of profitable results, will not be proceeded with.

Besides its mining property, the association possesses, also, on the banks of the Guadalquivir, on an advantageous site, accessible to vessels of 200 tons burden, smelting and refining works, on the eve of completion, which will be in operation in the course of next month, and are so designed as to be capable of extension for all the metallurgical and manufacturing purposes now in contemplation. These works are not dependent for ores on the mines of the association.

In addition to the valuable services of the superintendent above-named, the company enjoy the advantage of the local co-operation of an influential Spanish proprietor, personally known to the directors, who resides in the vicinity of the property.

They have likewise always received the ready assistance of the provincial authorities—whilst the neighbouring proprietors and population regard the undertaking with the most friendly disposition, as promoting their own immediate advantage.

This combination of natural and industrial powers, with British skill and capital, in a district where immense metalliferous resources have for centuries lain dormant, affords the best guarantee for the stability and success of the enterprise.

Thus circumstanced, the association, desirous of carrying on their operations on an extended scale, and with increased activity, have determined on enlarging their capital, by the creation of 200 new £100 shares, in addition to the 600 into which the property is at present divided. These shares will be issued in quarters, the price of which is fixed for the present at £35 per quarter share, and on each a deposit of £10 will be required at the time of allotment, and the balance will be paid by instalments.

The Debt of Settlement, under which the association are acting, is so framed as to protect shareholders, as far as practicable, from all risk or liability. The association, moreover, conducts its affairs on the principle, rigidly observed, of never allowing their outlay to exceed the capital in hand.

The following are estimates, framed with as much accuracy as the subject will permit, of the profits that may be expected to be in course of realisation when the enterprise is in full operation:—

The annual net profits on the smelting and refining of argentiferous lead ores alone, of which the neighbouring mines afford an ample supply, are calculated at £10,000, affording a dividend on each £100 share of 12s. per cent.

In regard to the profits to be derived from the mines themselves, the association, impressed with the fluctuating and uncertain character of such property, decline the responsibility of stating any definite amount of return; but, in hazarding the following estimates, they feel confident of their being considered based on a low computation, especially when it is borne in mind, that the average net profits of a good copper or lead mine in active operation, in this country, are from £20,000 to £60,000 per annum—and that the realisation of such a prize is not extended over thirteen chances.

**ESTIMATE FOR THE MINES.**  
Say that the thirteen mines give the moderate yield of 2600 tons of ore per year—of which, 1200 tons, say, are from the lead mines, and 1400 tons from the copper:—  
Taking the value of 1200 tons of lead ore at the low price of £5 per ton, gives annually £6,000  
And 1400 tons of copper ore, at the equally low sum of £10, gives .....14,000

Total annual value of ores from the mines .....£20,000  
Add smelting and refining profits .....10,000

The present total expenditure of the association, for its official establishment in England and Spain, is £400 per annum, to which add, for future annual expenditure on the mines, £9000—say .....10,000

Leaving annual profit .....£20,000  
Or 25 per cent. dividend on each £100 share.

In this statement are not included the profits on the smelting and refining of copper ores, on the manufacture of the metals, the rumoured probability of reduction of the duties in Spain on foreign coal, to favour native interests, and other items, of which the notice in detail is beyond the limits of a public advertisement.

Applications for shares, according to the antedated form, to be made to the secretary, at his offices, 15, London-street, Fenchurch-street, where further information may be obtained, and where specimens of the ores may be seen.

**FORM OF APPLICATION FOR SHARES.**  
To the Directors of the Andalusian Mining Association. 1845.

Gentlemen,—I have to request you will reserve and allot to me ..... quarter shares in the capital stock of your association; and I hereby agree to pay the deposit of £10 upon each quarter share you may allot to me, and to execute the Debt of Settlement of the association.

Name .....  
Residence .....  
Profession .....

### EASTERN COUNTIES RAILWAY COMPANY.

SEVENTEENTH GENERAL MEETING.—Notice is hereby given, that, in pursuance of the Act of Incorporation, the HALF-YEARLY GENERAL MEETING of the shareholders of this company will be HELD at the London Tavern, Bishopsgate-street, London, on Wednesday, the 5th day of February next, at One o'clock precisely, for the purpose of receiving a report from the directors of the progress of the undertaking, and of electing four directors, in the place of the four directors of the Eastern Counties Railway Company retiring by rotation, and for the transaction of other business.

The transfer books of the company will be closed on Saturday, the 25th inst., and will not be opened until Thursday, the 6th of February.

Offices, London, Terminus, Jan. 14, 1845. A. BULKELEY, Secretary.

N.B.—The dividend for the quarter ending the 4th inst. will be payable to those parties who, on the 25th inst., shall be the registered proprietors in the company's books.

### EASTERN COUNTIES RAILWAY COMPANY.

EXTENSION TO ELY, CAMBRIDGE, BRANDON, and PETERBOROUGH.

EXTENSION STOCK, No. 1.

Notice is hereby given, that the FOURTH INSTALLMENT of ONE POUND per share on each share in the above stock, becomes DUE on the 5th of February next, and will be received by any of the company's bankers, on the production of the call note issued to the registered proprietors of this stock. Holders of scrip, or of bankers' or office receipts, for the deposit of 13s. 4d. per share in the above stock, who have neglected to send in those documents for registry, are reminded, that, pursuant to the Notice to that effect, it is in the power of the directors to register, as the owners thereof, the names of the persons who originally executed the Parliamentary Contract Deed, and that the calls for the payment of the remainder of the instalments can then be made on the last-mentioned persons so registered, and the holders of scrip or receipts aforesaid, not sent in for registry, will forfeit their right and title to the shares represented by the same, which can only be transferred afterwards by transfer from the original proprietors. By order of the board.

Offices, Shoreditch Station, Jan. 24, 1845. A. BULKELEY, Secretary.

[REGISTERED PROVISIONALLY.]

### GOOLE, DONCASTER, AND SHEFFIELD AND MANCHESTER JUNCTION RAILWAY.

FOR EXTENDING TO THE PORT OF GOOLE A DIRECT COMMUNICATION FROM THE METROPOLIS.

And with the commercial towns of Sheffield, Barnsley, Manchester, and Birmingham, and the mineral and manufacturing districts of Derbyshire and Staffordshire.

Capital £635,000, in 25,400 shares, of £25 each.—Deposit £1 7s. 6d.

Altered from £1 10s., in pursuance to Act of Parliament.

**TRUSTEES.**  
John Buchanan, Esq., 13, Queen-square, London.  
James Smith, Esq., of Doncaster.  
Mr. Alderman Vickers, Sheffield and London.

**PROVISIONAL COMMITTEE.**  
Right Hon. Lord Beaumont, Carlton Hall  
Ralph Creyke, Esq., Rawcliffe Hall  
Jarvis Emson, Esq., Goole Hall  
Robert Lister, Esq., Groves House, Goole  
Thomas Clarke, Esq., Knedlington  
Thomas Coulman, Esq., Whitgift Hall  
John Lister, Esq., Goole  
W. E. Cass, Esq., Goole  
G. S. Smith, Esq., Goole  
John M'Innis, wine merchant, Goole  
James Wake, Goole  
James Wake, Goole  
Sammuel Hall, merchant, Doncaster  
John Maw, merchant, Doncaster  
J. R. Atkinson, Esq., Elmwood House, Leeds

J. R. W. Atkinson, Esq., Elmwood House, Leeds  
J. E. Morey, Esq., Doncaster  
Henry Whitham, Esq., Norwood Hall, Sheffield  
Henry Jubb, Esq., Broom-hill, Sheffield  
William Jackson, Esq., Sheffield  
William Butcher, merchant, Sheffield  
G. P. Naylor, merchant, Sheffield  
George Walker, merchant, Sheffield  
Benj. Vickers, corn merchant, Sheffield  
George Pitt, Esq., Barnsley  
John Tyas, Esq., Barnsley  
Samuel Clark, Esq., Rotherham  
Mr. Alderman Vickers, 13, Somers-street, Hyde-park, London

(With power to add to their number.)

**ENGINEERS.**—Messrs. Leather and Son, Leeds.  
**CONSULTING ENGINEER.**—Sir John M'Neil.

**BANKERS.**  
Sir William B. Cooke, Bart., and Co., Doncaster.  
The York City and County Banking Company, Goole.  
The Wakefield and Barnsley Union Bank.  
The Sheffield and Rotherham Banking Company.  
The Union Banking Company, Sheffield.  
Messrs. Prescott, Grote, and Company, London.

**SOLICITORS.**  
Wheats and Stanforth, Sheffield; Frederick Fisher, Doncaster; John Wilson, Goole.

**LONDON AGENTS.**  
The York City and County Banking Company, Goole.  
Scott and Co., Lincoln's Inn-fields; Thos. Rodgers, 37, King-street, Cheap-side; Parkes, Smith, Carr, Blount, and Brookfield, 12, Bedford-row.

The importance of a direct railway communication between the manufacturing and populous districts of Yorkshire, Lancashire, and Derbyshire, and the port of Goole, is too apparent to require more than the announcement. It is, therefore, proposed to form a company for the construction of a line of railway from Goole to Doncaster and Swinton, and by the Valley of the Dearne, intersecting the important and valuable coal-fields of Eleazar, Worsbrough, and Silkstone, to the Sheffield and Manchester Railway. This line will bring these valuable coal-fields within the reach of the important districts of Lincolnshire and Cambridgeshire, London, and the South of England. The quantity of coal at present shipped at the port of Goole from the above places, affords a satisfactory assurance that the increase which may be reasonably expected in this traffic will be in itself sufficient to realise a large profit to the shareholders. The traffic will also be considerably increased by the formation of any of the projected lines of railway from London to York, which will intersect this line between Doncaster and Goole, and thereby afford greater facilities of communication with the northern and southern districts of the kingdom. The districts connected by this railway with the port of Goole are second to none in population and commercial importance, uniting not only with Sheffield and Manchester, and the manufacturing towns of Yorkshire and Lancashire, but also supplying, by the shortest practicable route, an eligible and commodious shipping place for Birmingham, Derby, Nottingham, and Leicester, the Staffordshire Potteries, the Salt Works of Cheshire, and the other manufacturing towns of the midland counties.

The facilities of access to the port of Goole for vessels of large burden, and its superior advantages for the distribution of goods when arrived there, are such that insurances and freights are effected on the same terms as to the port of Hull, while its accommodations for the coal trade are such that the port of Goole from the above places, affords a satisfactory assurance that the increase which may be reasonably expected in this traffic will be in itself sufficient to realise a large profit to the shareholders. The traffic will also be considerably increased by the formation of any of the projected lines of railway from London to York, which will intersect this line between Doncaster and Goole, and thereby afford greater facilities of communication with the northern and southern districts of the kingdom. The districts connected by this railway with the port of Goole are second to none in population and commercial importance, uniting not only with Sheffield and Manchester, and the manufacturing towns of Yorkshire and Lancashire, but also supplying, by the shortest practicable route, an eligible and commodious shipping place for Birmingham, Derby, Nottingham, and Leicester, the Staffordshire Potteries, the Salt Works of Cheshire, and the other manufacturing towns of the midland counties.

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NOTICES TO CORRESPONDENTS.  
J. B. (Plymouth) in next Journal—also, A. T. J. Martin—J. M. (South Shields)—T. M. (Llandudno)—J. B. (Bishopscote).

## THE MINING JOURNAL

Railway and Commercial Gazette.

LONDON, FEBRUARY 1, 1845.

The important matter which will be brought under the consideration of the lords and adventurers in mines in Cornwall, at the meeting to be held this week in Truro, has induced us to enter at some length on the correspondence between Mr. GLADSTONE and Sir C. LEMON, which has been lately submitted to the public, and to which our attention, in common with others, has been directed. We shall next week report fully the proceedings, and also render further statistical matter in support of the protection which should be given to the home miner.

The correspondence which has taken place between Sir C. LEMON and Mr. GLADSTONE, on subject of contemplated alterations in the tariff, possesses more than ordinary interest, at a moment when the depreciation in the standard, and the influx of foreign ores, resses so heavy on the home miner—while, at the same time, it affords evidence too conclusive that the mining interest of this country have ought to expect from Government. The vacillating measures which Government have heretofore pursued—the uncertainty which attends their movements—and, moreover, the ignorance they display, are in themselves sufficient to establish their incompetency to deal with matters with which they are not conversant, but which we can well imagine have been pressed upon them by the free trader, the result of which, we apprehend, will be a ministerial application of the fable of "The Old Man, his Boy, and his Ass"—for, in the endeavour to please all, they will please nobody, and, perchance, fare the same fate as the unfortunate ass, in being thrown "over the bridge" at last. We do not profess to enter into the arena of politics; to us, it matters not whether Government be Whig or Tory—our sole object in dealing with them is to consider how far their measures are calculated to be beneficial or prejudicial to the mining interest, and in that light alone we wish to view their acts, past and contemplative.

At the time of the new tariff being introduced, we did not fail to express boldly the opinions we entertained, and supported as we were by the mining interest of out-adventurers—while Cornwall had its own committee, to protect, so far as was practicable, the interests of the county—we then protested against the measure, the sole object alone of which was to benefit the few at the cost of the many. It will be remembered, that, antecedent to the tariff being passed as a law, foreign ores could only be imported in bond, or, in other words, all foreign ores imported into this country for being smelted into cake copper, were required to be exported within six months—the produce being estimated by the assays made as to the metallic contents. It is, of course, understood that the identical copper was not exported, but an equal quantity, inasmuch that from the rich nature of the foreign ores it was found impracticable to smelt them without an admixture of the poorer class of sulphures, which are to be found in this country, and in some parts of Ireland. Antecedent, then, to the passing of the tariff, it is clear that the smelting of foreign ores in this country, however it might affect the price of copper in foreign markets, had no influence on our home consumption, as demonstrated by the difference which then existed in price, compared with the present, and that of the standard, as evidenced by the relative periods to which we shall have occasion to direct attention. Government, however, regardless of any class interest—at the same time that they lent their willing ear to the smelters and the adventurers in foreign mines—determined that all foreign ores should be admitted into this country, and be put upon an equality with our home produce, on payment of certain duties, according to the respective produce of the ores. It is hardly necessary to advert to the battle which was fought on the occasion, or the defeat of the miner, despite all argument, or the adduction of facts in support of the position of the home miner and adventurer. Suffice it that the tariff became a law—let us then see what has been the result. The standard had, at one period, advanced to nearly 140; but this, we admit, was one which we could not expect would be supported, and, perhaps, all circumstances considered, might be deemed an extreme; but, if we take a fair standard of 125, on ores of the same produce, as an average, or one which is required to give a fair chance to the mine adventurer, so that he may not only be remunerated for the capital employed, as well as risk incurred, but give to the working miner fair wages, and compare that with the ticketings of last week of 105L 9s. standard for ores of 7½ produce—or, further, were we to take the average for the past twelve months—it would be seen that the depreciation has been far more considerable, while the returning charges of 2L 15s. remain still the same, no matter what the price of ore, or standard at which it sells.

There are several points which present themselves in the consideration of the subject under notice, and which will be best understood by some few statistical facts, to which we shall at once direct attention. The following tabular statement of the produce of home and foreign mines, as shown by the Ticketing Papers, including private sales or consignments, appears as follows:—

British and Foreign Copper Ores Sold at Ticketings and by Private Contract, in the years 1841, 1842, 1843, and 1844.

Years ending	SWANSEA & CORNWALL TICKETINGS.		PRIVATE CONTRACT.		TOTAL.	
	British.	Foreign.	British.	Foreign.	British.	Foreign.
Dec. 31. 1841.....	12,359	8488	1113	408	13,472	8,896
1842.....	12,762	8663	1337	1143	14,099	9,806
1843.....	13,331	8348	1855	1652	14,786	10,000
1844 (estimated).....	13,492	9649	1235	2105	14,727	11,754

It is thus clear that, despite the prognostications of the foreign miner and the home smelter, that the tariff, or imposition of a duty on foreign ores, would militate against the working of foreign mines, and hence the assertion of Government, in reply to the home miner, that he had a sufficient protection by the duty imposed—we find that an increase has taken place in the production, with which, in addition to a depreciating standard, the home miner has to contend. If the price of metal should be referred to as the criterion, we can only say such may benefit the smelter, but, unfortunately, it does not reach the miner. It is the standard which he looks to with interest, and the rise or fall in which, influencing the price of his ores, gives him, in many cases, either a profit or a loss. Without further comment on the past, or entering into the subject generally, we will at once proceed to the correspondence which has given rise to our present observations. The first letter to which our attention is directed, is from Mr. GLADSTONE to Sir C. LEMON, conveying copy of a letter from a gentleman, in which it is stated that the miners of this country are in favour of an abrogation of all duties on foreign ores—an assertion which, in the eyes of any one save Mr. GLADSTONE (he of the tariff), would have been sufficient to have stamped the communication as utterly worthless as the groundwork of inquiry; but the hon. gentleman, willing to avail himself of any opportunity which presented itself, whereby the question might be raised, at once seizes on the letter, and, as Sir C. LEMON had lent him a slight help on a former occasion, thought that the best thing was to submit it to that gentleman, and ask his opinion upon it. But, for the correspondence, we could hardly credit that a Minister was so innocent—yet we forget that copper is but one of the articles in the tariff, and as Cornwall is celebrated for "fish, tin, and copper," we presume that Sir C. LEMON will next be consulted on the import of dry haddock or Dutch plaice. Sir C. LEMON, however, with a manliness which does him the highest credit, and which must endear him to the heart of every true Cornishman, at once seizes the "bull by the horns," and, having well considered the points mooted by Mr. GLADSTONE's correspondent, directly rebuts the assertion, and, in a gentlemanlike manner, rebukes the Minister, who expected that Sir C. LEMON would have allowed himself to take a part in a piece, which we have seen illustrated as "The Cat, the Monkey, and the Chestnut." However, in the present instance, puss was not to be caught burning her fingers—indeed, it is said, that a burnt child dreads the fire, and we apprehend Sir CHARLES has, ere this, discovered that his helping hand to the Minister on a former occasion, instead of being received as a boon, for which the Minister should have been grateful, is treated something like DAN's acknowledgment of Ministerial favours, merely to serve as a stepping-stone. However, we are glad to find that the Minister has, in this instance at least, reckoned without his host.

Having noticed the private letter to Mr. GLADSTONE, from his Cornwall correspondent, copy of which was transmitted to Sir C. LEMON, and by

that gentleman properly designated—we approach the second paper, which purports to treat the subject in detail, and to argue the several points, which may be raised by the home miner, in much the same style as a counsel, with a bad case, in his opening speech wishes to anticipate the defence which may be put forward, assuming a line of argument which was never contemplated by his opponent, and fighting with shadows, while the real merits are passed over. Thus it is that Mr. GLADSTONE's correspondent hopes to entangle the Minister in the meshes of a question, which the one understands too well to explain, and which the other, with all explanation, is not likely ever to understand, if we may judge by his acts, for as to his moral conviction that is another thing, and with which we, of course, have nothing to do. We are told that the "importation of foreign copper ores into this country is of comparatively recent date." Admitted; 1832, 579 tons ore, or 66 tons copper, value 5360L—while in 1844 it is assumed by Sir C. LEMON as 11,754 tons copper, which, if taken at an average of 17 produce, would give us about 70,524 tons of ore, which, if again taken at 12L per ton, would yield an amount of 846,288L, or nearly equal to the value of the ore raised in Cornwall. So that, since the comparatively recent date when foreign copper ore was introduced—viz., twelve years, we find an advance of from 5360L to 846,288L, which is merely 150 times as much—no small trifle to contend with. Let us, however, proceed, and having canvassed the arguments (?) put forward by the apt commentator and adviser, as they present themselves, advert to the masterly reply of Sir C. LEMON. We have next a truism—for Mr. GLADSTONE's correspondent deems it necessary to inform the Minister that, antecedent to the recent alterations in the tariff, foreign copper ores were allowed to be imported under bond free of duty—the condition of the bond being, that an equal quantity of unmanufactured, or cake, copper, should be exported within a given time. The operation of this regulation, we are told, was, that, as the export demand for unmanufactured copper did not of late years equal in amount the quantity of copper contained in the foreign ores imported, the British smelters have been compelled, in order to comply with the obligations of the bonds entered into, to force sales on the continent, whereby a reduction in the value, as compared with our home markets, was the necessary consequence. All this, we are free to admit, and we repeat now what we said at the time that such argument was advanced, three years since—that such was the British miners' protection. We have before us a table, drawn up at the time of the relative exports of British and foreign copper for four years, from which it appears that, in 1838, the quantity of British cake copper exported was 2061 tons; that of foreign cake 1549 tons—or a difference, in favour of British, of 512 tons. In 1839, British, 1108; foreign, 1920—or, in favour of foreign copper, 812 tons. In 1840, British, 1014; foreign, 2247—establishing a further increase, the difference being, in favour of foreign copper, 1233 tons, or upwards of 100 per cent., while, in 1841, the exports of British cake had dwindled down to 495 tons, and that of foreign advanced to 3223 tons—being a surplus of 2728 tons; the foreign copper being six times the quantity of British—the total for the four years being, British cake, 4678 tons; foreign, 8939 tons.

These are figures sufficient to convey to one of less understanding and more dull of comprehension than Mr. GLADSTONE, why, with an increasing import of foreign ores, the foreign markets should find themselves glutted—and here, to make our case more perfect, it may be well to take the value of the imports for the four years: in 1838, it was 407,132L; in 1839, 425,746L; in 1840, 613,331L; and in 1841, 734,020L; while the rough estimate we have made of the value of the ores imported during the past year is no less than 846,288L. Thus much for facts and figures. We leave to Mr. GLADSTONE, the free traders, and the immaculate smelters, to draw their own deductions; to our simple mind, it does not require a *Walkingame's Tutor*, or *Tail's Arithmetic*. We must, however, not get too critical, but follow the writer closely. It is contended, that had unmanufactured copper been allowed to be exported, matters would have been widely different, and this we readily believe; but the difference would be at the cost of the home miner—for we find the exports of British unmanufactured copper, as sheets, nails, &c., to be as follows:—1838, 5412 tons; 1839, 6205;—1840, 6181;—1841, 5055;—Total, 22,853 tons.

Now, up to this time no foreign copper was exported in a manufactured state; but, according to the statistics which precede, it will be seen, that in 1841 the exports of foreign cake copper were 3223 tons, and that of British only 495 tons. We are told, that the quantity of copper contained in foreign ores imported has never equalled the quantity exported, by which, we presume, is meant the quantity of manufactured copper. Admitted; but would this free trader wish that all foreign copper imported should be exported as manufactured copper—as, in such case, perhaps, he will point out some means of application of the produce of our home mines. In 1841, it will be seen that the exports of foreign copper, which we may assume as approximating to the imports, were 3223 tons, while the exports of manufactured copper were 5055 tons, or about 50 per cent. more than the produce of foreign mines imported into this country.

After discussing the merits or demerits of a system which our correspondent (or, rather, Mr. GLADSTONE's, if the latter gentleman had not a hand in it himself) tells us was put an end to by Sir ROBERT PEEL's tariff, whereby a sliding scale was introduced; we are then coolly told, that "the effects of this alteration are likely to be most seriously injurious to the interests of all the parties concerned in the smelting of copper ores ('aye, there's the rub'), to the British miner, the collier, the shipowner, and merchant" (the smelter and merchant being like the Siamese twins)—and then comes the conviction of the writer, that these mistaken "protective (?) duties," imposed by the tariff in favour of the British miner should be at once annihilated, effaced from the schedule, and that foreign copper ores should be admitted duty free.

We are informed, that "at this moment the greater portion of the copper made in this country is the produce of foreign ores," and, therefore, says this casuist, "it would be idle to imagine that any measures taken for the imagined protection of British mines can destroy, or even materially check, the large foreign production." All honey to the British miner, who, we are told in a preceding paragraph, must be most seriously injured by the import of a duty on foreign ores. Sweet words. Hence, it is contemplated by this advocate of the smelter-merchant and the foreign mine adventurer, that should not additional inducements be held out to the latter, he will take his ores to another market; and here is the gist of all his argument. It is amusing to follow him, and one short extract would alone cause the miner to smile, were he not conscious that the Minister and himself were not brought up at the same school—yet we can hardly imagine any one so stolid as not to be able to understand the sly hit of the writer; for, says he—"The interests of the British miner will be more affected by the continuance of this system than those of any other party; the smelter (forsooth) may convey his capital and his knowledge to situations where his trade will not be affected by these restrictions, but the copper ores raised in this country must be smelted on the spot, or not at all, for they are too poor to bear the expense of removal." Hear this, ye WILLIAMS, VIVIAN'S, and GRENFELL'S. Surely, we shall have a meeting of the good people of Swansea, of Llanelly, of Neath, and of Tybach and Cwm Avon, to petition the smelters not to remove the many hundred stacks which adorn those districts, distributing their arsenical and sulphurous vapours abroad, while they give employment to some three or four thousand individuals, exclusive of the collieries. But let us in sober seriousness ask ourselves this question—Can it for a moment be supposed that either of the firms we have named, or any other, are wild enough to contemplate removing their plant to a foreign clime. We could enlarge on the theme, but it is too absurd to create more than a smile, which is one of contempt, that a threat so ridiculous in itself should have been put forth by even the smelters advocate.

We are next told—"It is a fact, beyond dispute, that the duties imposed on foreign copper ores is, with regard to a very large proportion of them, greater than the advantage, in point of economy in smelting, which this country possesses, and that the duty on the poorer class of ores has led to their conversion into pig copper and copper regulus in South America." Is it necessary that we should tell this "wise-acre" that, whether there is a duty or not, the poorer class of ores will ever be converted into pig copper or regulus, if alone to save freight and carriage, where facilities are afforded on the spot, by the contiguity of timber as fuel; but, perhaps, he is unacquainted with the fact, that there are thousands of tons lying at the Cobre and Santiago Mines of a produce of 8, which they cannot convert into regulus for want of fuel, while the heavy freight of 50s. to 60s. per ton, added to the returning charges of 55s., with insurance and other incidental expenses, preclude its importation, under any circumstances, into this country, whether there be a duty or not. Why does not this gentleman advocate a bounty being given on all ores imported into this country by foreign vessels?

We are next told that the United States are making efforts—in fact, have actually published prospectuses, for the establishment of smelting works for the conversion of the Cuba ores. We repudiate the idea—the conversion

of Pennsylvanian bonds into American dollars is much more likely. We must otherwise first suppose that coal can be raised and delivered into the smelting works at 9s. 6d. to 4s. 6d. per ton—next, that the site of those works are convenient to the point of delivery and shipment—then, that they find in the United States an admixture of the poor ores (which we are to be deprived the power of smelting in this country), so as to mix with the rich ores from Cuba, and which, it is notorious, is necessary in the process of smelting. All this, we suppose, we are to take for granted, and the rate of labour being so much lower in America than in England, there can, of course, be no doubt but that America will, one day or other, rival England in her smelting establishments. We shall see—that is, if it be in our time. We do not think it necessary to travel further in company with Mr. GLADSTONE's representative, for we find the space between us, as we progress, so infinitely on the increase, and the distance between us so great, that we fear, if we proceed another stage, we shall lose sight of each other, as he appears to have done that of his subject, and more especially the interests of the British miner.

We have already carried our remarks so great a length, that we must needs be brief in our notice of Sir CHARLES LEMON's reply, which, however, is so concise and plain, that it requires but little remark. He unsparingly denies the correctness of the position assumed by one of Mr. GLADSTONE's correspondents, for, as he justly observes, with reference to the parties who are said to be aggrieved, that neither the British miner, the collier, the shipowner, or the merchant complains; it is (says he) "the smelter and foreign miner who alone complain," and, as he observes, how justly, may be best understood by a table which the hon. Member introduces, showing the quantities sold at ticketing and by private contract, to be in the past four years—British ores 57,084 tons, and foreign 30,456 tons, which, if we allow for English ores a produce of 8 per cent., would give us for home produce 4566 tons of copper, while, assuming the foreign ores to yield 17 per cent., we should have 5177 tons. We do not pretend to be correct to a fraction, it is sufficient for us to arrive at an approximation, while we may observe that as the ratio of British and foreign ores was in 1841 as 13½ to 8½; in 1844 it had increased in favour of foreign ores as 147 to 118—no inconsiderable advance, as will be seen if tried by the same test as that we have previously adopted. In 1841 the produce of British mines was 1077 tons of copper, and that of foreign 1510; in 1844, British 1178, and foreign 1998 tons—thus, as Sir C. LEMON observes, exhibiting a constant and rapid increase since 1841, comparing the last year with the year before, the increase was 17½ per cent., and, comparing the two last years under the tariff with the two previous years under the bonding system, the increase has been 16½ per cent. "Facts and figures" Sir CHARLES, and with a firm bold front, with confidence and determination, we think that the Minister will think twice ere he acts once.

We must now needs take leave of the subject; however, we shall resume its consideration in our next, when we shall report the result of the meeting at Truro, convened pursuant to a requisition, signed by Mr. TREFFRY and others, embracing in the list Mr. MICHAEL WILLIAMS. We are glad to find this gentleman acting with the mining interest, and confess we have some curiosity to ascertain the course he will pursue. We know which way interest would lead; but there is such a thing as principle—and this, we doubt not, Mr. WILLIAMS will maintain, and establish the character of a Cornishman, as being sufficiently independent to be honest; and well pleased shall we be if in the end we find that this will apply to "One and All."

More than ordinary interest has been evinced by the commercial world in the proceedings of the North Kent Railway Company—one of the lines reported against by the Board of Trade. On Wednesday, a meeting of the shareholders was held; a report, pointing out the advantages of their own, and the disadvantages of their rival's project, and recommending the prosecution of their bill before the House of Commons, was read, and unanimously adopted. Resolutions were also put and carried, authorising the provisional committee to proceed summarily, in opposition to the unfavourable report of the Board of Trade. To carry out these measures the more efficiently, an advance of 10s. per share was advised, and cordially agreed to; at the same time, an offer being made to those who were unwilling to proceed further, to return them their money, without the slightest reduction. These proposals were warmly responded to by a full meeting of shareholders, and—with the exception of a few dissentients, who approved the decision of the Board of Trade, on the grounds that an amalgamation between the North Kent and South-Eastern lines being inevitable, and even then contemplated, it was better that such a result should be come to at once, than deferred to a period when it would be prejudicial to the country and to the shareholders—were carried unanimously. With these remarks the meeting did not appear to concur, and the resolutions were, as we observed, carried by a large majority. The effect of these proceedings will, doubtless, be considerable on other companies similarly situated; hitherto, disappointed lines had been in abeyance, undecided whether to incur the expense of a Parliamentary battle with the Board of Trade and their more fortunate opponents, or withdraw from the disputed field. The decided step taken by the North Kent is certainly important at the present juncture, if not on the individual interests concerned, at least in its influence on the conduct of others.

A case of some importance, as relates to transactions in shares, is, we understand, likely to come before the public, which will tend to expose the system too frequently adopted in certain districts, not 1000 miles from Liskeard, and which will, doubtless, in a great measure, account for the fallacious value too frequently attached to many mines in that locality. In the mines to which we refer, proceedings have only just commenced, it would, therefore, be premature to say more, or name the parties concerned, until we are in possession of further information, when we shall be ready to lend our aid in exposing and condemning the conduct of the practice, which we are afraid is too often adopted, and which must necessarily militate against all legitimate mining.

In another column will be found a pretty full abstract of the proceedings of the Australian Agricultural Company during the year 1843, as furnished by their report to the annual meeting of proprietors on Tuesday last. We congratulate the company on the success of their arduous labours in the colony, amid a depression which, now of nearly five years' duration, has paralysed all commerce, and even labour, in New South Wales. The continued and assiduous efforts of the directory, ably seconded by their commissioner abroad, and responded to generously by the whole establishment in the colony, have, however, surmounted difficulties of sufficient magnitude to discourage the most sanguine. The company, nevertheless, has prospered, and, despite their temporary difficulties, has so far surmounted them as to justify a dividend of 15s. on the paid-up shares of the joint company. Such a result must not only be gratifying to the directors, but satisfactory to the several proprietors, and again we congratulate the company on this proof of gradual but decisive success for the past, and earnest of steady improvement for the future.

On Tuesday evening, the vice-presidents of the Society of Arts gave a *conversazione* at their institution, in the Adelphi, on a scale of liberality and splendour suitable to the high character of its objects and pursuits. The suite of apartments is admirably adapted for a *re-union* of this description, and on this occasion presented a *tout ensemble* of elegance and brilliancy gratifying alike to the rank and science of the crowded company. The models, designs, and other specimens of ingenuity, displayed the nicest taste of the secretary (Mr. Wishaw) in their disposition and appointments. The beautiful model of the new principle invented by Mr. Filbrow, to be applied to the atmospheric railway, and which promises to obviate the chief defects in that system, elicited universal attention, and in answer to several searching questions, the inventor satisfactorily refuted all objections, and appeared to establish his ground ably and successfully. The electric telegraph was also an object of intense interest, and its principle fully exemplified by Mr. Cooke (the co-patentee with Mr. Wheatstone) and Mr. Roberts (his assistant). Several sentences were transmitted with exactitude from one end of the room to the other, being first described by the manipulator on the dial. Mr. Cooke, in the course of the evening, stated, that with a slight modification in the symbols, the principle might be adapted to an infinite variety of uses, and that, independently of its applicability to conversation, express, reports, &c., it might be easily converted into a medium whereby musical compositions might be transmitted, chess played, and an incredible number of such communications be carried on between distant parties. Beautiful specimens of electro-gilding, silvering, &c., as well as of the solid deposit, were displayed to great advantage, and excited the admiration of a fashionable and talented assembly; nor were entertainments of a less grave character wanting. Refreshments were liberally supplied, and the company separated shortly before midnight, after a rational evening of interest and instruction.



## RAILWAYS IN IRELAND.

We have been obliged through a press of matter to defer much longer than we should have wished directing the attention of our readers to the various schemes now before the public for extending to Ireland the invaluable benefits to be derived from railway communication. None can be more rejoiced than ourselves that such a prospect is not only in view, but of their existing every probability that the great majority of Irish railways now projected will be found a profitable investment for British capital, and, as such, receive the sanction of the Legislature.

It is by such great national works that Ireland will, we trust, be eventually raised from her present lowly and degraded position. Political and religious agitation has, we should hope, done its worst. The attention of the people is now being directed to the promotion of the industrial interests of the country—to the judicious development of its great resources—and to the extension of their trade and commerce, by the great facility of international communication afforded by railways. The abundance of British capital, and the readiness with which its possessors invest it in any speculation that promises a fair return, is at this time most fortunate for Ireland. Most of our readers are, no doubt, aware that there exists at the present time but three railways in Ireland—viz, the Dublin and Kingstown, the Ulster, and the Dublin and Drogheda, their aggregate length being sixty-two miles. It is many years since these lines were commenced, and the Ulster Railway, which was to extend from Belfast to Armagh, thirty-six miles, is not yet completed.

Up to the autumn of last year, no further movement worth mentioning was even attempted in Ireland; but at that period the great abundance of money in the English market, and the difficulty of finding a good investment at home, tempted some of our capitalists to extend their researches to Ireland, more, we fear, as a *dernier resort*, than with any strong hope of being able to turn their enterprise to a good account. They were, however, agreeably deceived. The existing state of communication throughout the country, so lamentably inferior to what it is in this—and, indeed, most other European countries—was brought under their immediate notice, and they saw enough to satisfy them that capital might not only be safely, but also profitably, invested in many railway undertakings in Ireland. The immediate result of this conclusion was, the projection of the Dublin and Cashel line. The undertaking was proved to be sound, and the returns remunerative; the shares were rapidly taken up, and soon rose to a premium of 2l. or 3l.; and so anxious was Government for the bill being immediately brought in, that all the Standing Orders of the House were suspended for that purpose, and the bill passed with little or no opposition. Such was the commencement of the railway movement in Ireland, destined, as we trust it is, to work out a great change, moral, social, and political, in the habits and feelings of the people. The Dublin and Cashel bill was the only one brought in during the last session; but most of our readers are aware—as our advertising columns have abundantly testified—that the impetus thus given to railway speculation in Ireland, by the facts elicited before the committee, has received no check up to the present time. Estimates and plans for the construction of six hundred miles of railway—involving an outlay of capital to the amount of upwards of eight millions sterling—are now before the Board of Trade.

We shall now notice the general grounds—more or less applicable to all railway speculations in Ireland—relied on by the projectors of the different schemes, in proof of the soundness of their respective undertakings:—1st, the cost of construction, on account of the cheapness of labour in Ireland, will be much less than in England; 2d, the moderate price of land, owing to the strong support given by the landed proprietors to the different companies; 3d, the comparatively small expense, under such circumstances, of obtaining their respective bills; 4th, the great improvements that have taken place in railway construction and management; and 5th, the anxious desire of the people generally to avail themselves of the facility of travelling which can alone be afforded by railways.

Our remarks have extended so far beyond what we purposed, that we must confine our observations for the present to the lines projected in the north of Ireland. Those of the south, east, and west, we shall take an early opportunity of noticing.

**BELFAST AND BALLYMENA** (with a branch to Carrickfergus).—Length, thirty-five miles; capital, 385,000l. This line has received the approval of the Board of Trade, and should pay well; there is a considerable traffic and good trade between the two towns, and the gradients are fair.

**DUBLIN AND BELFAST JUNCTION**.—Length, seventy-nine miles; capital, 950,000l.; this line joins the "Ulster" at Portlough. Some of the gradients are very heavy; the shares are at 2l. 10s. premium. The traffic on the line will, no doubt, be very considerable; but we certainly think it cannot be constructed for the sum named.

**DUBLIN AND ARMAGH**.—Seventy-eight miles; capital, 800,000l. This line has been rejected by the Board of Trade, and, we think, very properly. It would have been in opposition to the Dublin and Belfast Junction, and, although it would have afforded great inland accommodation, it could not have paid.

**ARMAGH, COLERAINE, AND PORTLUGH**.—Sixty-eight miles; capital, 600,000l. This will probably be the best paying line in the north of Ireland, as the districts through which it will pass, according to the Report of the Railway Commission, are the most densely populated in the country. The gradients are highly favourable, being, on an average, 1 in 320. Portlough is an excellent and capacious harbour in the north of Ireland, and contiguous to two fashionable watering places. This line was favourably noticed a few days since in the City article of the *Times*.

**DUNDALK AND ENNISKILLEN**.—Seventy-seven miles; capital, 750,000l.

**NEWRY, ARMAGH, & ENNISKILLEN**.—Seventy miles; capital, 900,000l. These two lines, under certain conditions, have received the approval of the Board of Trade; a joint line is to be constructed as far as Clones, where they are to diverge. We fear very much, what might have been made one good paying line, will not do for two; we certainly would have wished that the Board of Trade had rejected either one or other *in toto*. In a doubtful matter, it is better to be on the safe side, and the approval of one or other should have been deferred—at least, for this season.

**GREAT NORTH-WESTERN—DUBLIN TO CAVAN**.—Sixty-eight miles; capital, 750,000l. But a few words on this line is necessary, it having been rejected by the Board of Trade, as it would to some extent have competed with the Dublin and Drogheda Railway. We much regret, so far as the country is concerned, the circumstances that obliged the Board to reject this line, but the decision was unavoidable.

**LONDONDERRY AND ENNISKILLEN**.—Fifty-seven miles; capital, 500,000l. This line, if properly projected, should pay well; but, for the special benefit of Derry, the line takes the north side of the Foyle, instead of the south—the extra cost so incurred will be about 140,000l. The bill in its present form cannot, we feel satisfied, pass the Board of Trade. The interests of English shareholders cannot be sacrificed to the mere convenience of particular localities.

We have now finished our list, and have given our own unbiased opinion, so far as opportunities have allowed us to judge. We would, however, strongly recommend our friends, before investing their money in any railway, to think and judge for themselves.

**IMPROVED COMMUNICATION WITH IRELAND**.—Within a very short time the works on the Chester and Holyhead Railway will be commenced, everything being now ready for immediate operations, which are only delayed till the meeting of the directors on Wednesday next shall have let the contracts for divisions of the line. Its route, which was favourably reported on by the Railway Committee in 1840, is by Holyhead and Bangor, and the Government have entered into a contract with the company for the conveyance of mails, at the rate of 30,000l. per annum for seven years. The line, which will eventually extend eighty-four miles, is expected to be completed in about three years. This will materially increase the facility of intercourse between the two countries, and we anticipate the most beneficial results in more respects than one.

**TALACRE COAL AND IRON COMPANY**.—On Friday, the 24th ult., a motion was made in the Court of Queen's Bench, Dublin, on the part of the defendant, for leave to strike a special jury forthwith, in the case of Howard v. Shaw—a new trial having, as we announced last week, been unanimously accorded by the Bench; the application was unopposed, and immediately granted. This shows something like confidence on the part of the defendant, who, it may be remembered, is one of the victims of the Talacre Company, and who, after being already maligned in 1800l., is now sued for a similar amount! We have no doubt, however, of the result, and we trust the ill-success which has lately befallen all attempts to extort money from the unfortunate shareholders, will prevent those at the bottom of the scheme from carrying on their depredations.

**"GREAT BRITAIN"**.—This magnificent specimen of the art of shipbuilding, which is now moored off the Brunswick-pier, Blackwall, will well repay a visit. We have already described its main features, but expect shortly to be favoured with a more particular account of its machinery and fittings, from the notes of a practical marine engineer, and which we shall have pleasure in submitting to our readers.

## THE IRON TRADE—RAILWAYS AND SHIP-BUILDING.

It gives us sincere satisfaction to lay before our readers a flattering account of the iron trade. Never do we remember a period when its prospects were brighter, or its improvement more decided. Our information from all quarters is gratifying, that from the north more particularly so. In Durham its value has been materially enhanced, and the trade in Newcastle has received such an impulse, as to warrant us in holding out most sanguine hopes, both to owners of property, consumers, and the mining operative population. And here let us observe, that we are not easily captivated by a temporary fluctuation, nor deluded by an unsteady nervous improvement, which might speedily relapse into dullness, if not depression; but it is after a calm and anxious review of the trade that we deliberately express our conviction that the present improvement is based on solid grounds, and likely to be steady and progressive.

This we consider mainly attributable to the extended adoption of railways; and the impetus which this system has given to the department in question is not confined to the home, but has had its effect on the export trade also. Thus, while the consumption of iron, to furnish new rails, carriages, engines, &c., for this country, has created a large demand in the market—and, to all appearances, that demand must increase considerably for some years, at least—the development of the locomotive system abroad has so raised the value of our trade with Germany, France, and America, that notwithstanding the prohibitory duties in those countries, our export trade in this metal bears an increase for the last over the preceding year of more than 80,000 tons, or in money upwards of half a million sterling.

But, independent of the favourable influence produced by railways, there is another, and equally important, circumstance which considerably affects the trade. We allude to the consumption of iron for the purposes of ship-building. The vast advantages arising from vessels being thus constructed, as regards speed, safety, and economy, have been so indisputably established, that a general, if not exclusive, adoption of the principle, not only for steamers, but also for sailing vessels, may be fairly anticipated. Here, then, will be a constant enormous demand for iron, which, if our mines are able to supply, will afford a high and profitable market.

With these prospects before us, we are not over sanguine in expecting a steady improvement in every branch of this industrial department.

In reference to the above subject, we may here acknowledge the receipt of a Treatise, illustrating and explaining the improved forms of Iron as applicable to Ship-Building, by the patentees (Messrs. Kennedy and Vernon, of Liverpool). The improvement they propose is simple, and likely before long to be universally adopted; its nature will be best understood by giving the words of the inventors:—"Iron ship-building has made much progress in this country, but it is still capable of great improvement; and to effect this, in two most essential points, we have directed our attention, by the assistance of practical observation and experience. Although we do not pretend to say that the vessels hitherto constructed are in any danger, from the adoption of iron of the common form for deck-beams and side-frames, we consider that the forms we have invented, and for which we have taken out a patent, effect the object of uniting the maximum of strength with the minimum of weight in the highest degree. There is no part of a ship to which strength is of more consequence than in deck-beams and side-frames; they are the bonds which keep it together, and, if they remain firm, there is no danger to any part of a vessel, built of proper materials, and scientifically constructed. We have already used this patent iron in several steam-vessels we have lately built, and are satisfied of its superiority over every other shape of iron hitherto in use.—Heretofore, iron vessels have generally been constructed with angle iron, usually employed for the ribs of vessels, and also by uniting one or two pieces of this angle iron with a plain bar of iron, and sometimes with rolled iron. Both these systems, it is well known, are not so strong as a bar of iron, having ribs or flanges on both the top and bottom edge."

The importance of this application to ship-building must be manifest at once, by placing the greatest quantity of iron in the weakest parts, which thus, with a trifling addition of weight, affords tenfold stability and strength.

Lord John Russell has lately written a most sensible letter, in reply to a communication from the Spitalfields Weavers' Union, on the subject of Taxing Machinery. The following extract will convey the views of the Union, and his lordship's opinion of the expediency of the measure:—"While you seek to put fresh restrictions on the skill and ingenuity of mechanical inventions, it will not be in my power to assist your endeavours for the benefit of the sawyers. If I were to do so, I could not stop with your trade. Nailmakers are in a similar condition, owing to the new machinery for the manufacture of nails; other artisans and agricultural labourers will pray for the like interference, to prevent the use of new machines which interfere with manual labour. Now, my belief is, that these inventions tend to the improvement of our condition as a people, and enable us to support the great weight of taxation to which we are subjected. Ever since I have known this country, machinery has been in progress towards perfection, performing more and more the task of human hands, and, at the same time, a great number of people have found profitable employment." In these observations we fully and heartily concur—they are true in every particular, clear and incontrovertible. They cannot be too freely disseminated and adopted, for we regard the laying duties on machinery as (in the words of his lordship) "a perilous course, which would soon enable foreign nations to outstrip us in the score of competition."

**INSTITUTION OF CIVIL ENGINEERS**.—At a meeting of the members, on Monday last (W. Cubitt, Esq., V.P., in the chair), Sir John Rennie was elected President of the Institution, in the room of J. Walker, Esq., who has resigned.

**ELECTRIC TELEGRAPH**.—The first trial of the electric telegraph took place on the South-Western line yesterday week. As we have already stated, it was constructed for the use of the Admiralty and the company, by Messrs. Cooke and Wheatstone, the patentees, and extends from Gosport to Nine Elms—a distance of eighty-eight miles. The experiments commenced shortly after ten, and a long conversation kept up with the greatest precision between Mr. Cooke and his assistant at London. The success of the system was thus indisputably proved; but to render public confidence greater, Professor Wheatstone commenced about noon the following day to dispatch signals from Nine Elms, and the experiments invariably met with the same gratifying result. The professor's new magneto-electric telegraph was afterwards brought into a long circuit of wire, and worked admirably through 280 miles. In this apparatus, a steel magnet is the source of power—and, consequently, the batteries are altogether dispensed with. It may be remarked, that the weather was exceedingly unfavourable for the experiments; nevertheless, the insulation was perfect. The entire cost will be about 24,000l., to be borne equally by the Admiralty and company, and the Government are now in treaty with the Chester and Holyhead Company for laying down sections on that line. Thus, after eight years' perseverance, have Messrs. Cooke and Wheatstone arrived at a result as important to the commercial and political world, as satisfactory to the inventors. The last difficulty has now been overcome by the present system of insulation, and we have only to congratulate the country on this stupendous triumph of modern science.

**MARYPORT AND CARLISLE RAILWAY**.—This line is now open for the traffic of goods. On Thursday ten waggons of beautiful coal were delivered at Dalton, from Mr. Harris's pit, of Ughterside, and two waggons of lime of excellent quality. The different stations between Aspatria and Carlisle will now be regularly supplied with coal and lime, and by the 1st of February the whole of the line, it is expected, will be ready for passengers.—*Newcastle Advertiser*.

**FIRE ANNIHILATOR**.—Last week, Dr. Ryan, the Professor of Chemistry at the Royal Polytechnic Institution, gave a lecture "On Fire," for the purpose of noticing an apparatus lately invented by Mr. Phillips, of Bloomsbury-square, called the "fire annihilator." The name certainly takes a wide range, but the experiments of the lecturer proved that the machine fully deserved it. Dr. Ryan commenced by stating, that one of the great objects of the Polytechnic Institution was, to bring before the public eye, and to illustrate by experiments and models, the discoveries of scientific men. Before he entered upon the subject of the fire annihilator, he should endeavour to explain the nature of combustions and of fire. After explaining the phlogiston theory of the earlier chemists, and the more modern views of Lavoisier and others, the lecturer proceeded to prove, by a number of experiments, that combustion under all circumstances is the result and companion of chemical action. A considerable portion of his lecture was afterwards devoted to the consideration of supporters and non-supporters of combustion, or to those conditions which are necessary either to maintain fire or to prevent its action: he then especially pointed out the effect of volumes of free nitrogen or free carbonic acid upon the flame of coal gas; and, after showing that combustion instantly ceased in an atmosphere containing but a small per centage of these gases, he proceeded to explain that Mr. Phillips used a mixture of coke, nitre, and sulphate of lime, with a little water—the products of its ignition were principally free nitrogen, carbonic acid, and water vapour. To illustrate the office of the apparatus, which for a large house is only the size of a small stove, Dr. Ryan kindled a fire of patent wood, to which he added about half a pint of spirit of turpentine, in an iron house; when the flame was at its height, he introduced a small apparatus, holding not more than two ounces of his material, and in half a minute the fire was completely extinguished, and the audience expressed their approbation by loud and repeated applause; and it may be naturally expected that they would be much interested in an experiment of a system involving the security of life and property. As the apparatus is small, and may be kept charged, requiring only the action of a trigger, on the alarm of fire it may be carried to any part, and immediately used. It will prove of vast utility in ships, as it may be placed in the hold, and, on an alarm of fire, the trigger may be pulled, and the gas will escape, thus putting a stop to the ravages of the devouring element. We understand that Dr. Ryan intends to make the subject of a daily lecture for some time, to give the public an opportunity of judging for themselves.

## Original Correspondence.

## EFFECTS OF EARTHQUAKES ON CLOCKS.

SIR.—The communication of Mr. Hopkins excited in me, I will confess, a lively interest. The former part proves its relation to the formation of metallic veins, and the latter portion shows the connection of the phenomenon with electricity. Cross-courses filled with the debris of lapidaceous matters, range from south, or a little to the east of south, to north, or a little to the west of north, while metallic veins charged with mineral matters, agreeable to volta-magnetism, are found to maintain a direction at right angles with the electric current. These and similar facts are in perfect keeping with the beautiful researches of R. W. Fox, Esq., of Falmouth, *Hull, Jan. 27.* J. MURRAY.

## THE DISCOVERY OF GOLD ORES IN NORTH WALES.

SIR.—I regret to observe, that Mr. A. Dean, after a silence of two months, should have again presumed, in his letter of the 30th ult., to claim the discovery of gold ores in North Wales. I am aware that the valuable space of your paper should be filled with much more useful matter than a controversy between Mr. Dean and myself; but in this instance, for my own reputation, I beg the insertion of the underwritten facts.

I have only to repeat, that in the year 1836, I found samples of gold ore, which were then assayed, and the result communicated to several highly respectable persons in London; but, believing the Government would not sanction the working of such ores, I allowed the subject to remain silent, until the year 1843, when further samples of gold ores were found by me, and examined by and shown to several persons of character in this neighbourhood, and the like information conveyed to the Government agent for the district. As to Mr. Dean's denial of the information being given to him by me, that gold ores were to be found in this county, I can only attribute it to a treacherous memory—for I still repeat the assertion, that to me, and to me only, Mr. Dean has to be thankful for his first acquaintance with the above facts; and, to convince you, Mr. Editor, and the public, that I was not "totally ignorant of the matter," as Mr. Dean wishes it to be believed, I beg to hand you an extract from his letter, sent to me—first informing you, that I had forwarded to Mr. Dean, in London, for the purpose of being assayed for the precious metals, some samples of gossans I had found. The extract is as follows:—"I write to request you not to give any information to any one but Mr. Harvey, as to where you got the samples of gossan ore from."

I am afraid, Mr. Editor, that I have already trespassed too far on your valuable paper, but, with your permission, I will only add a few lines on the honour Mr. Dean would endeavour to confer by making me his agent. In his letter, he thus writes—"that during the month of December, 1843, and January, February, and March, of the present year, Mr. Roberts continued to act as agent under my orders." To this I reply, that the assertion is anything but correct; and I most distinctly deny being either in his or his employer's service one hour, or that I ever received any remuneration—at the same time, it is fair I should state, that, pending the negotiation for the sale of the mines, Mr. Dean was several times in Dolgelley, and, being a stranger in the county, yet apparently taking great interest for the intended purchaser, I did in several instances, at the request of my employer, give him much valuable information, thinking it would assist him in the management of the mines, and never anticipating that unfair advantages would be endeavoured to be made of such communications.

I will now conclude by saying, that in my previous letter I certainly had no intention, as Mr. Dean would imply, to deceive you, Mr. Editor, or any other persons, "by pretended ignorance as to his operations;" but I think it would be desirable, for his own sake, if all parties could be kept in ignorance of the system that has been pursued under his management. *Dolwhegydd, Dolgelley, Jan. 24.* ROBERT ROBERTS.

[We regret that there should be occasion for our correspondent's letter, inasmuch that Mr. Dean must have either known the facts communicated in the letter of Captain Roberts, or he has innocently committed himself by asserting that which our correspondent would designate as being something more or less than the truth. We trust, however, that Mr. Dean will feel it a duty imposed on him to set the matter right, by acknowledging the correctness of the representations of Capt. Roberts, and that the *amende honorable* will be made, which, while it will at once relieve the parties from any false impression which the correspondence is calculated to convey, will, we hope, be alike satisfactory to both—regretting, as we do, that any controversy in our columns should have arisen on a matter of no other general interest than the discovery of gold in the gossans of lodes in North Wales. We have the assurance of a correspondent, in whom we can place every confidence, that the statement of Capt. Roberts may be relied on; and it is only necessary to add, that we have every reason to believe that he would not make a statement which would admit of doubt.]

## THE IRON TRADE—ENGLAND AND SCOTLAND.

SIR.—The writer of the article in your last publication, headed "The Iron Trade of Scotland," appears to be quite ignorant of the fact, that pig metal, and malleable iron of very superior quality to any that can be produced in Scotland from the black-band, is made in the counties of Northumberland and Durham, though not yet ranked as iron-making districts, and at prices that bids fair to exclude from these extensive consuming localities all metal suitable for machinery, and every other purpose where strength is required. It is surprising that capitalists should have so long overlooked the great capabilities of the iron-fields of Durham and Northumberland, and which circumstance is noticed by an able writer on the subject in the last edition of the *Encyclopaedia Britannica*, vol. xii., p. 431, as follows:—"In glancing at the different iron and coal-fields of Britain, it is matter of astonishment that Northumberland and Durham, possessing within themselves all the requisites for the iron manufacture, should yet be so far behind, compared with much less favoured districts. The only way of accounting for this apparent apathy to extensive mineral treasure, is the fact, that the attention of capitalists in that part of the country has hitherto been exclusively devoted to the working and exportation of the coal alone."—*Newcastle-on-Tyne, Jan. 30.* NORTHUMBRIA.

## ARSENIC IN CANDLES—CAMPHINE LAMP.

SIR.—You will, no doubt, have noticed the verdict given in the case of one of the workmen in the manufactory of the "composite candles" of Le Paige and Co., in the Borough—viz, that he "died from the mortal effects of the arsenic" used in the manufacture of these candles. It turns out that many use nine ounces, where they use "only two." Only two ounces!—quite sufficient, in all truth, for the destruction of health, and even life. Arsenic is employed to give these candles a waxy appearance. I hope the remarks I have already made will operate as a caution, if not as a caveat, against the use of composite candles, or by whatever other name they may be called. Price and Co. say there is no arsenic in their composite candles, and it may be so, but I freely confess I would require a strong guarantee in a question of such serious moment.

I have been informed that Dr. Ryan, of the Polytechnic Institution, has given an opinion unfavourable to Young's Patent Vesta, or Camphine Lamp. I should be glad to know his reasons, and from what source he could obtain as pure and beautiful a light, with as much salubrity and safety. We rejoice in its continued use, and the longer we use it we like it the more.—*Hull, Jan. 27.* J. MURRAY.

## COAL MINES.

SIR.—I confess that I like the sentiments of "A Looker-on," in your last, better than the memorable one in a former Number of "A Passer-by." As far as I understand the proposition referred to, it seems to differ in no respect from the "safety urn" proposed by me as early as 1829, to consume the fire damp on the spot. It should never be forgotten, that carbonic acid gas is the inevitable product of the combustion of "fire damp," and that this noxious gas, when in quantity insufficient to overpower the lungs, and cause instant death, acts, even in minor proportions, as a narcotic poison on the brain. I have never seen Messrs. Lyell and Faraday's Report to Government. I applied to Sir James Graham for a copy, but was refused, on grounds not very intelligible; judging, however, from extracts I have seen, they have certainly "stolen a leaf out of my book," and, as far as I can learn, without acknowledgment, as the following extract from my *Communications on Coal Mines*, page 13, will testify—"In order to get rid of it ('fire damp'), I would recommend that pipes, perforated at intervals, on their circumference, attached to the roof, be distributed in the various recesses of the mine, and thus receive the gas in their different ramifications; these pipes entering a main trunk or channel, the light carburetted hydrogen is finally conveyed to an air-tight furnace at the bottom of the upcast shaft, where it is consumed," &c. This differs from nothing from the plan recommended by Messrs. Lyell and Faraday for freeing the goaves of "fire damp." However, Sir, I really feel now, that any allusion to topics like these on my part must be unwelcome to you, for you have expressly said, and as plain as language could enforce it,

• English's patent camphine.



that what you are pleased to call "practical men" should have the exclusive management and direction of these things, to the exclusion of science and scientific men, and, in sober seriousness, a fine thing they have made of it, in the continued wholesale destruction of human life, and in hecatombs of victims! Verily, Sir, the sympathy of the public will then have been awakened in vain! I want to see practice illuminated by the light of science, and guided and directed by the aid she proffers in the application of the laws of Nature, which are unvariable and immutable, and which alone who has studied them can know. I defy you to point out a single coal mine in the British dominions worked in accordance with these laws, or benefitted and blessed by the aid which science can assuredly bestow. Having made those observations in vindication of myself and other scientific men, who have directed their special attention to this deeply interesting subject, I once for all take my leave of the question.

Hull, Jan. 27.

J. MURRAY.

## Mining Correspondence.

## ENGLISH MINES.

## HOLMBUSH MINING COMPANY.

Jan. 27.—The sump winze is down to the 120 fathom level, and the sumpmen are now employed driving south towards the lode. In the 110 fathom level, west of Hitchins's shaft, nothing more has been met with south, and the men are now driving west on the lode discovered some time since; in the stopes east and west of Mitchell's winze, the lode is one foot wide, and worth 16L per fathom; in the stopes west of Lobb's winze the lode is fifteen inches wide, and worth 12L per fathom. In the 100 fathom level, west of Hitchins's shaft, the lode is one foot wide, and worth 15L per fathom; the eastern stopes in the back of this level are suspended at present; in the stopes east of Forest's winze the lode is fifteen inches wide, and worth 14L per fathom; in the stopes west of Hitchins's shaft the lode is fourteen inches wide, and worth 20L per fathom; in the stopes west of the south cross-cut the lode is one foot wide, and worth 18L per fathom. In the ninety fathom level, west of Hitchins's shaft, the ground continues favourable; in the winze sinking below this level the lode is six inches wide, with stones of ore; in the stopes east of Pearce's winze the lode is twenty inches wide, and worth 25L per fathom; in the stopes at Hitchins's shaft the lode is ten inches wide, worth 8L per fathom; in the winze sinking below the eighty end, in the rise above this level, the lode continues small and poor. Our next sampling will be about 190 tons of good quality ore.—T. RICHARDS.

## UNITED HILLS MINING COMPANY.

Jan. 28.—In the eastern end, at the eighty fathom level, the lode is five feet wide, 2 ft. 6 in. of which is ore of fair quality; in the western end the lode is four feet wide, one foot on the north part producing good ore. In the eastern end, at the seventy fathom level, the lode is three and a half feet wide, two feet good ore; in the western end the lode is four and a half feet wide, fifteen inches on the north part producing ore of average quality. In the eastern end, at the sixty fathom level, the lode is three and a half feet wide, two feet good ore; west of James's, the lode is four feet wide, two and a half feet of fair quality, looking kindly; in the winze the lode is four feet wide, two and a half feet good ore. In the winze, at the fifty fathom level, the lode is three feet wide, two feet good ore; in driving south the ground is rather more favourable for driving than last reported. The lode in the thirty fathom level is two feet wide, producing but a small quantity of ore. The lode in the ten fathom level is small and unproductive. At Wheel Sparrow, in the eastern end of the fifty fathom level, the lode is two and a half feet wide, one foot on the north part of low quality; in the western end the lode is two and a half feet wide, ore throughout, of a coarse quality. In the eastern end, at the forty fathom level, the lode is one foot wide, producing but little ore; in the western end the lode is three and a half feet wide, one foot on the north part good ore. The lode in the thirty fathom level is twenty inches wide, one foot on the north part of average quality. The lode in the ten fathom level, on Stacey's lode, is fourteen inches wide, eight inches ore of fair quality. T. TREVENEN.

## CONSOLIDATED TRETOL MINING COMPANY.

Jan. 27.—The lode in the sixty fathom level, west of Henwood's shaft, is eighteen inches wide, worth 7L per fathom; price for driving, 6L 10s. per fathom; tribute, when set, 8s. in the 1L. The lode in the sixty fathom level, east of ditto, is one foot wide, worth 5L per fathom; price for driving, 5L per fathom; tribute, when set, 8s. in the 1L. The lode in the rise in the back of the fifty fathom level, east of ditto, is twenty inches wide, worth 5L per fathom; price for driving, 3L per fathom. The lode in the forty fathom level, east of ditto, is two feet wide, producing a little ore; price for driving, 2L 10s. per fathom. H. WILLIAMS. J. MORCOM.

## WEST WHEEL JEWEL MINING ASSOCIATION.

Jan. 27.—The 100 fathom level west, on Wheel Jewel lode, is without alteration since our last; the 100 east on ditto is still worth 6L per fathom. The eighty-five east on ditto is worth 5L per fathom; in the winze sinking below this level the lode is worth 8L per fathom; in the eighty-five west on ditto the lode is nine inches wide, unproductive. No lode taken down in the western winze, sinking below the seventy on ditto, in the past week; in the winze sinking below the same level, east of little cross-course, the lode is worth 8L per fathom. The eighty-five west, on the new lode, is six inches wide, composed of spar and muddle; the ground in the eighty-five cross-cut north is still favourable for driving. In the thirty east on Morcomb's lode is eighteen inches wide, composed of peach, muddle, and spar. The lode in Wilkinson's engine-shaft, sinking below the fifteen, is two feet wide, composed of spar and stones of ore. S. LEAN. R. JOHNS.

## TRELLEIGH CONSOLS MINING COMPANY.

Jan. 25.—In the eighty fathom level, at Christoc's, the sumpmen are cutting a plat at the engine-shaft, preparing to sink, and the tributaries are at work in the bottom of the eighty fathom level east. Garden's shaft, below the seventy, is sinking in the country, under said level, and preparing to receive the pit-work. In the fifty west of ditto the lode is one foot wide, producing stones of good ore. In the seventy east of Good Fortune the lode is two feet wide, with stones of ore, and kindly; in the seventy west of ditto the lode is three feet wide, worth 4L per fathom. In the sixty rise, west of ditto, the lode is three feet wide, worth 12L per fathom—the end is suspended, till a communication is made with the fifty; in the sixty east of ditto the lode is two feet wide, with stones of ore. In the winze below the fifty west the lode is two and a half feet wide, worth 10L per fathom—this will communicate with the rise above-mentioned in the course of next week. In the fifty west of Symons's the lode is two and a half feet wide, worth 12L per fathom. In the forty-four west of ditto the lode is twenty inches wide, with some ore, and kindly. In the rise above the thirty-four ditto the lode is two feet wide, not much ore—this is to hole to a winze under the twenty, suspended on account of the water. In the twenty west of ditto the lode is three and a half feet wide, worth 5L per fathom, and very promising. In the adit west of ditto the lode is eighteen inches wide, unproductive.—The mine is drained of water, and we are in good course of working at Christoc's and Good Fortune. W. SYMONS.

## CALLINGTON MINING COMPANY.

Jan. 27.—Johnson's engine-shaft is sunk nine fathoms below the ninety fathom level; at this level driving south the lode is worth 5L per fathom; in the north end it is worth 4L per fathom. In the north end at the eighty fathom level the lode is worth 12L per fathom; in the south end it is worth 8L per fathom. The winze sinking in the bottom of the seventy fathom level, north of engine-shaft, has been suspended for the present, on account of the water being quick. The eighty fathom level is not yet forth. In the sixty fathom level the lode is producing silver-lead ore.—The north engine-shaft is sunk eight fathoms below the eighty fathom level; at this level driving south the lode is worth 8L per fathom. In the seventy fathom level the lode is worth 5L per fathom. In the sixty fathom level the lode is producing silver-lead ore; the same may be said of the forty fathom level.

Jan. 28.—We have been this day taking down the counter lode, in the seventy fathom level driving east, and find it three feet big, with the most flattering appearances; two feet of it is intermixed with copper ore, throughout worth 5L per fathom—driving at 2L per fathom. J. T. PHILLIPS.

## WHEEL MARY MINING COMPANY.

Calstock, Jan. 29.—We have been driving east, during the last fortnight on the middle lode about twelve fathoms, and are now about twenty-five fathoms from the mouth of the adit. The lode is large, and composed of spathose iron, floukan, muddle, and fluor spar, with copper, and very rich silver ores. The lode is ten fathoms south of the north lode, and by their course they are evidently drawing together going east, and the most favourable results may be expected, as the north lode is a very strong and promising copper lode. We have commenced opening the south lode on the back, and as soon as we have done so, we shall sink a shaft to cut the lodes about thirty fathoms in depth, when I have no doubt but that a very rich lode of ore will be discovered. W. WILLIAMS.

Samples Assayed.—No. 1. Produce 13½ of copper, and 63 oz. of fine silver to the ton of ore.—No. 2. 14½ per cent. of copper, and 74 oz. of silver to the ton of ore.—No. 3. 18 per cent. of copper; not assayed for silver.—No. 4. 150 oz. of fine silver to the ton of ore. J. PRINCE.

## WHEEL CONCORD MINING COMPANY.

Jan. 29.—As soon as we get an engine, which can be erected and put to work for about 1000L, we shall raise a quantity of ores from the old workings, as the levels were looking very promising at the time the mine was abandoned, for the reasons stated in Mr. Hichens's report. We last week discovered a lode, from ten to twelve feet wide, about 100 fathoms west of the engine-shaft, with strong floukan, and containing a large quantity of lead ores in it. We are now opening on the backs of two other lodes on the north, which are looking very promising. B. ROBINS.

## CORNUBIAN MINING COMPANY.

Jan. 27.—I have been comparing my survey of this day with the report last week (given rather at length), and cannot see that I am able to furnish you this week with anything new or different, excepting that we have a very rich lode in the bottom of the eighteen fathom level, at Ventongimps, worth full 20L per fathom, which is of great importance to that part of the mine. The water, however, is so quick, that we must suspend all operations below adit after the present week.—The last 30 tons of lead sold at 13L 8s. per ton.—R. ROWE.

## NORTH HOLMBUSH MINING COMPANY.

Jan. 27.—The cross-cut at the sixteen fathom level is driven south of the engine-shaft 3 fms. 2 ft. 6 in.; the ground, since last report, has very much improved for driving—we can now drive with greater ease two fathoms per week than one fathom before. In the present end of the cross-cut there is a branch about six inches wide, composed of muddle, spar, and capel; probably this is one of the branches met with in the adit level, a few feet north of the lode. Judging from this branch, and the quantity of water coming from the south of it, it is probable we are near the main part of the lode; consequently, the inclination towards the shaft must be greater than was anticipated.—T. RICHARDS.

## COOK'S KITCHEN MINE.

Jan. 25.—We have been fixing a plunger and altering the pitwork in flat-rod shaft, and therefore have done but little in the cross-cut south since I wrote last. The tributaries have a good lode in sinking under the sixty fathom level, on the south part of North Tincroft lode. You will recollect that the eastern shaft was sunk on the north part of this lode, and that at the seventy fathom level the water was too quick to allow us to cut the other part, until the lode shall be cut in the cross-cut at flat-rod shaft; it appears at present that the south is the best part, being about three feet wide, nearly perpendicular, and producing very good ore. In the back of the sixty fathom level the pitches are all looking very well. We have set two pitches in the back of the eighty-two fathom level—one at 8s. and the other at 9s. in the 1L for ore. In the 121 east the lode has a more promising appearance than it had last week, but is yet poor. Chapple's lode, in the 170 fathom, east of Chapple's shaft, is very large; we are carrying it three feet wide, but have no north or south wall—it is worth 10L per fathom. In the winze sinking under the 160, about two fathoms east of the 170 end, and seven fathoms below the 160, the lode is also large, worth 15L per fathom. Dunkin's lode, in the 170 west, is two feet wide, but unproductive. The 160 west is holed to a winze sunk under the 140, and we have now a very promising piece of ground to set on tribute as soon as we are able to clear it. In the cross-cut south from Rogers's shaft, at the twenty-nine fathom level, the ground is favourable, and we expect shortly to cut the north part of the new south lode. The Druid shaft is still dry, and the ground fair. Our pitches on ore are looking better than for some time past, and those on tin continue very good. A. EDEY.

## BEDFORD UNITED MINING COMPANY.

Jan. 27.—At Wheel Marquis, the new engine-shaft is 11 fms. 2 ft. below the fifty-eight fathom level. In the fifty-eight fathom level east the lode is two feet wide, composed of gossan, spar, and ore, and in the rise in the back of this level it is two and a half feet wide, and worth 15L per fathom; the lode in the fifty-eight fathom level west is two feet wide, and worth 14L per fathom. No lode has been taken down in the forty-seven fathom level west. Warn's winze is communicated with the fifty-eight fathom level; the lode in Clemens's winze, sinking below this level, is two feet wide, and worth 10L per fathom; the lode in the stopes in the back of this level still continues productive, being worth 22L per fathom. The lode in the deep adit level remains without alteration.—At Ding Dong, the lode in Thomas's engine-shaft (2 fms. 2 ft. below the twelve fathom level) is two feet wide, composed of spar, muddle, and ore. In the twelve fathom level east the lode is two feet wide, producing saving work.—At Wheel Tavistock, the lode in Phillips's engine-shaft is two feet wide, composed of very fine gossan and spar, with spots of copper ore. J. PHILLIPS.

## STRAY PARK AND CAMBORNE VEAN MINING COMPANY.

Jan. 27.—We beg, with great respect, to hand you the following report on these mines.—In the sixty-five fathom level cross-cut, driving north to intersect Dolcoath lode, the ground is favourable; price 5L per fathom. In the eighty fathom level, driving west, the lode has been gradually improving throughout the past month, and will now yield two tons of ore to a fathom, worth 6L per ton; the present end is within four fathoms of the ninety, and seven fathoms behind the course of ore in the 100; the lode possesses indications of a progressive improvement, and the ore is coming in between the elvan and killas, precisely as it did to the level below. In the ninety fathom level, driving west, we have passed through a good lode of ore for six fathoms in length, the back and bottoms of which are now set on tribute to eight men, at 6s. 8d. in the 1L; in the last two fathoms driving the lode in the end has been less productive for ore, but it is now greatly improved, and will yield three tons to a fathom, worth 6L per ton; this end is within three fathoms of the winze sinking at the commencement of the course of ore in the level below, and we have every reason to believe that when in far enough to catch the dip of the ore, this level will prove quite as productive as the one below; the lode is between the elvan and killas. In the 100 fathom level we have driven seven fathoms through a good course of ore, which will yield on an average twelve tons to a fathom, worth 5L 10s. per ton; in the last six feet driving the lode has been split up with the elvan, but in the present end it is again improving, and will now yield three tons to a fathom, with every indication of its continuing to improve. In the winze, sinking about seven fathoms behind the 100 end, we have gone down five fathoms through a course of ore, averaging in value 40L per fathom; and in the present bottoms of the winze the lode is better than it was when we commenced sinking; we have set the back and bottoms on tribute to twelve men, at 2s. 6d. in the 1L. The 110 end, driving west, is about ten fathoms behind the ore ground in the level above; the lode is at this time small and poor. In the 120 fathom level west there is a large and very kindly lode, between three and four feet wide, worth for ore 15L per fathom, and containing very rich stones of tin; this end is within a few feet of the winze going down in the 100 fathom level, but if the ore dips west (which we believe it does) the 100 is not yet sufficiently far west as to overtake it; we like the present appearance of this end very much, and hope it will answer our expectations. In the 120 fathom level east the lode is one foot wide, containing good stones of ore, worth 6L per fathom. In the 140 fathom level, driving east to communicate with Stray Park old mine, the lode is small and poor. In the course of another month or two we shall draw out the water from Stray Park, and effect this communication as speedily as possible, which will enable us to set many more pitches, and give us the old engine and 150 fathoms of pitwork to dispose of for ready cash. In the 150 fathom level, driving east, the lode is one foot wide, containing stones of ore; and driving west the lode is smaller than in the eastern end, and not richer. In the 180 fathom level we are driving a cross-cut south to intersect the south lode; the ground is hard and wet; price per fathom 12L. We sampled on Wednesday last 375 tons of ore, ninety-eight tons of which came from our tutwork operation in the 90 and 100 fathom levels. R. EUSTICE. E. RALPH.

## CARADON WHEEL HOOPER MINING COMPANY.

The engine-shaft in this set is down about six and a half fathoms—twelve men are engaged in sinking. The number of hands now employed in this mine is seventeen. Ten lodes are discovered, most of which are very strong. A whim is on the spot, and will be in work in a few days. J. SEYMOUR.

## FOREIGN MINES.

## COPIAPO MINING COMPANY.

Copiapó, Sept. 30.—The San Pedro Mine presents still more pleasing appearances than when last reported on. This is a mine that seems to possess more merit than most of the mines in the locality of Puquios, for it is just now beginning to exhibit prospects that are not only encouraging for the present, but have something like permanence attached to them. You will recollect, that in the Quebrada Mine, below the ten fathom level, the ore began to degenerate, or fall off in quality, and, though abundant, but little of it would pay shipment, and such has been the case with almost all the mines that I have seen in Copiapó; Checo, of course, is an exception, and I fully believe this will be another. We are already deeper than the Quebrada Mine, with the ore still good, and the lode not showing the least indications of growing less productive, but still retaining the two principal properties that constitute a good lode and a good mine—size and quality. We have sunk now eleven fathoms below the twelve fathom level, and have in the bottom of the shaft a lode more than two feet wide, nearly the entire ore of more than 25 per cent.; after sinking about two fathoms more, we shall commence driving two levels, six feet above the bottom—these will be called the twenty-four fathom levels; the six feet that will be below this level will be required for a fork, or well, to receive the coming water. Should the lode continue as good in each of these levels, as it promises now to do, we shall soon further increase the produce here. In the last month we have been obliged to employ six of our English miners in the shaft, there being so much water that none of the natives would work—and, if they would, four times as long would be required to sink it to a twenty-four fathom level; we are now drawing 500 barrels of water in twenty-four hours, each barrel containing twenty-two gallons. When we have finished the shaft and fork, we intend putting larger to draw with. I do not anticipate much difficulty in keeping out the water, because, after a little, when the country is drained, we may reasonably expect the water will be less abundant. The counter lode still looks very encouraging, and produces some good ore, but the rich parts of the vein are at present small. On the new parallel lode we have done but little in the last month, having required the two men working there to assist in the prosecution of the new shaft above-named. On the whole, I think, in the last month, our prospects here are greatly improved, especially as regards the permanence of the mine.

The Checo Mine continues to yield some excellent ore from the different points named in my last reports, and, in addition to this, we have now a very pretty lode at the bottom level, east of the Victoria shaft, in entirely new ground; the vein is from two to three feet wide, ten inches of which is excellent ore, nearly 80 per cent. This appears to me to be a very important point, as, in the last five or six fathoms we have driven in this level, the lode has

been entirely unproductive, which shows clearly that this is the commencement of a fresh bunch; however, I hope in my next to be able to give you a more satisfactory and cheering account of this level.

At the Pampa Larga Silver Mine, nothing new has occurred, but we have been pushing hard, and with the same unabated ardour, and hope of success. I may be wrong in being so sanguine or confident of the ultimate success of this mine, but I cannot see as yet any reason to vary my opinion. It is to me a subject of deep regret, and I believe not less so to you, that we have been so long working with such small produce; and it will be but a poor consolation to me, should it in the end turn out a failure, to know, that all the mining capitalists, majordomas, and miners, that have seen Pampa Larga, entertain precisely the same opinion as I have so often expressed. I do sincerely hope, that we shall soon have some improvement in this mine, for I assure you it would be as much relief to my mind as if I had been personally interested in it.

At the San Jorge Silver mine, we have again had a little silver from no less than three different points. In sinking a winze below the thirty-five fathom level we have extracted about eight quintals of ore from a little gila, or bunch, running close to the main vein; the vein is large, 6 feet wide, and the whole of it shows traces of silver, and has a beautiful appearance; I certainly have a strong opinion that we shall soon come in contact with something good here. In the ten fathom level we have also had some few quintals of ore in the last month, but at present it is unproductive, yet the appearances are such as to lead us to hope soon to see it producing silver again; in the back of the ten fathom level, where we are stopping, the vein is about six inches wide, with still perceptible silver, but not rich, about the same quality as the ore you have now at the Maquina.—Ore extracted in August, about 4½ tons, or 100 quintals.

The produce of the San Pedro Mine for August is 50 tons, of the Checo Mine 43 tons, of the Quebrada Mine 8 tons—total, 101 tons.

## IMPERIAL BRAZILIAN MINING ASSOCIATION.

Gongo Soco, Nov. 23.—At Catta Preta, the adit from Brightman's shaft is in progress. At Gibbs's shaft, we are extending a cross-cut through the soft formation, with a view to the intersection of the richer part, which tradition reports to repose on the hard rock; the quartz lode, and the rock near it, are both hard, and the gold in the former is very sparing. At the Folketas, the vein has been cut through at the ten fathom level; it is about eight feet wide, and is very poor, though still showing gold—we are now driving east and west on it; the shaft at the latter place I have called Thomas's, after my kind and excellent friend the secretary. After five days' absence, I am happy to find, on my return, that everything had gone on during my absence with perfect regularity, discipline, and order; my only regret has been, that the poverty of the mine is even greater than on any former occasion, and I see no prospect of any early or important improvement. I had heavy rain during some part of my journey, but unhappily none seems to have fallen here, where the service water is still wretchedly scanty. I am happy to advise you of the continuance of health, peace, and good order, throughout the establishment here and at Catta Preta.

Dec. 3.—We have commenced the erection of washing strakes in the valley below the mine; they will require but little labour, and will serve to extract any little gold yet remaining in the sand and mud deposited in the waste of the mine in years past. About eight or ten days ago we had some heavy rain, which for a day or two gave us hopes of the wet season, and that we should be able to set the pumps once more at work in Vesey's shaft. I am sorry to add, that our expectations were disappointed; the prospect of rain has wholly disappeared, and our surface water is again just as scanty as ever. I have to lament, that neither Gongo Soco nor Catta Preta has, since my last, presented anything worthy notice, and in both we are unhappily without improvement.

## Gold Report.

W. J. HENWOOD.

Nov. 13 to 20—Stamps	4 0 0	4 4 7 0
to 30—	4 1 6 0	4 1 16 0
Tableiro	0 8 18 0	0 8 18 0

Total

ST. JOHN DEL REY MINING COMPANY.

Morro Velho, Nov. 18.—Heads working during eighteen days, 67-49. The supply of ore has not been good, nor is it good at present. Captain Verran wants more men; he says the shafts are hard to sink. In speaking of the East Cachoeira, in his last weekly report to me, he says, the lode is much harder to break now than it was some six months ago, and he finds by experience that every fathom, deeper down the country, becomes much harder; and he can truly say, that there are pounds a fathom difference in sinking. There is nothing new in the mine. The Bahu sump, and East Cachoeira sump, on Pen-gilly's shaft, are being sunk; the side of the Bahu lode is being scraped down, and the West Cachoeira lode is being driven through. All this is very slow work, and yields only a small quantity of ore. The mechanics have been busy with the iron and timber work for the Gamba sump; they completed all that was ordered on Saturday last, and they are now preparing some fresh orders for the same purpose. The masons are completing the foundation walls for the carpenter's shop. It is proposed to attach a wire rope or chain to the wheel of the Lyon stamps, which is immediately in front of and below the new carpenter's shop, connected with a wheel and axle in the shop, for the purpose of working turning-lathes and boring pumps—the Lyons wheel having the power to spare. (Diary). Nov. 14.—Poor supply of ore. The two shafts sinking and the end driving in the West Cachoeira yield a very small quantity of ore. Both Capt. Verran and Mr. Helmreich say they have never known the Bahu shaft so hard and poor as it is at this time; the end driving in the West Cachoeira is excessively hard also.—Nov. 19. Badly off for water again in the upper level, not a drop of water in the tanks, and pumping wheel not able to perform her work, yet we are well into what ought to be the rainy season.—Nov. 21. Better supplies of ores of late.

Nov. 28.—Heads working during twenty-eight days, 67-37. The supply of ore has been tolerably good of late, but not so good that we are able to dispense with rejected ores, which are constantly reduced in quantity—indeed, the principal supply of rejected ores has been that rejected from the ores extracted from the mine by Capt. Verran last year; those rejected in 1842 were estimated at much too large a quantity. During the last two days there have been very propitious rains, which have set the pumping-wheel at full work, as well as the twelve heads of the Herring stamps. The Gamba pumping gear is making great progress, and is expected to be ready by Saturday next.

## BRAZILIAN COMPANY.

Cata Branca, Dec. 4.—I fear there is now no alternative than at the end of the year to abandon the bottoms, and proceed to take down the arches and shales of ground left standing. This week the new hauling machine will be at work, and all possible force applied to the bottoms. I hardly look to any improvement in the produce from so doing, the present value of the stone being 80 to 70 tons to the pound of gold; and, though there has been rain, and some days the stamps have been more effective, yet they are not generally efficient, and at this moment the drought is as severe as ever. At Sumidouro, the breaking ore from the high ground first opened was found too difficult till the deep adit is up, which will yet take another month or two; we are, consequently, working the high ground left by the old proprietors, which gives only 80 tons to the pound. E. HARDING.

Gold return for three weeks to 29th November—17lbs 9oz. 17dwts.

## MINE ACCIDENTS.

Bedford Colliery.—A boy, named John Millington, fell down the pit, and was killed. Mr. Gregory, the manager, has promised that the pit covering, which was faulty, shall be altered.

Wokington.—D. Wilkinson was killed by a fall of roof at Buddle Pit.

Llanamlet.—Two men were killed by breaking of the rope at Glanwen Pit.

Swansea.—An explosion of fire damp took place at the Charles Pit, when a boy named J. Harris was killed.

Patricroft.—Four men were injured by an explosion at Messrs. Lancaster and Co.'s colliery.

Mynydd Newydd Colliery.—Three men and a boy were injured by an explosion.

Hirvan Iron-Works.—J. Evans was killed while at work in a coal level.

Dudley.—A quantity of coal fell on J. Knowles, while at work in Messrs. Bramah and Cochrane's, Woodside Colliery, and killed him.

Tipton.—A miner, named Smith, who was engaged extricating the dead body of his brother but the previous day (see last Journal), met a similar fate by a fall of coal.—A sad accident happened at Coseley, near Tipton, when, as five men were being let down the pit, the chain broke, precipitating the whole to the bottom, the chain falling upon them. There is too much reason to fear that the unfortunate event originated in malice—a disagreement having existed among the men respecting wages, threats were made that something should happen if any of the men accepted less than the terms demanded; and, upon afterwards examining the chain, it had the appearance of having been cut through, except one link, which gave way while descending with the load.

Cinder-pit Colliery, near Nottingham.—A tremendous boiler explosion occurred at this colliery, by which one man (W. Parker) was killed, and several severely injured, besides a considerable loss of property. The works will be suspended for at least a month.

Levant Mine.—W. Trezise was killed by the fall of a scale of ground.—Grace Trembath was dreadfully injured while employed at the stamps.

Caradon Mine.—A meeting of the shareholders in this mine was held at Webb's Hotel, on Wednesday, the 22d ult., pursuant to notice, when a further call of 2L per 128th share was made.

GREEN BOURN COPPER MINES.—These mines, which have not been worked for the last century, are situated about three miles north of Coniston Copper Mines, and about four miles east of Cockley Beck Copper Mines, within the manorial rights of Lord Muncaster, of Muncaster Castle, have, we understand, been lately leased for a term of years by a few of the workmen of the Coniston Mines, who are all well skilled in copper mining, of small capital, and enterprising disposition. We understand the veins are pregnant with a very rich ore, and, so far as they are yet able to judge, the prospect is very promising.



